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ORIGINAL ARTICLES.

ADVANCES IN OUR KNOWLEDGE OF SOME CEREBRAL, OCULAR, AND INTRA-ORBITAL LESIONS; WHICH FACILITATE THE DIAGNOSIS AND TREATMENT OF IMPORTANT DISEASES.

Read in the Section of Ophthalmology, at the Fortieth Annual Meeting of the American Medical Association, June, 1889.

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In offering a short paper to the Association I assume that knowledge independently acquired in a special department of practice may be a useful contribution to the general store; especially if illustrating the importance of an adequate theoretical and clinical training in order that the value of local phenomena, and their relation to coexisting conditions of other organs and of the general system, may receive due estimation. Much of our information, on points to which I am to refer, is of so recent date, that I trust a brief epitome of some personal observations may not be unacceptable.

INTRA-CRANIAL GROWTHS.

When we remember that less than forty years ago the existence of intra-cranial growths was usually but dimly suspected from the existing symptoms, and only rarely demonstrated at autopsy; and that we are mainly indebted for the first and most positive recognition of their presence, to the disclosures revealed through the medium of the ophthalmoscope, with which we were endowed in 1851 by Helmholtz, we may well congratulate ourselves on the brilliant advances in cerebral pathology and cerebral surgery which his invention has done so much to render possible; as well as on the vast increase of our knowledge of intra-ocular lesions obtained through its assistance. These results afford a striking instance of the direct application of purely scientific investigations to the benefit of man.

But while being thus enabled to assert the existence of intra-cranial growths, we did not at once recognize the full therapeutic importance of this newly acquired knowledge. Unable at first to discriminate between those specific formations which are often amenable to constitutional treatment, and those of local origin, or to determine accurately the position of the lesion, we often looked on helplessly while the disease went on to its sad termination.

I offer a few instances from my own experience as a contribution to the symptoms and history of early recognized cases which were uninterrupted in their course and were verified by autopsy.

Soon after the addition of the ophthalmoscope to our optical resources, I saw in consultation a gentleman in middle life, on account of loss of vision. The diagnosis of cerebral tumor was made. As the disease advanced the senses of taste and smell were also gradually abolished, and death occurred about six years from the invasion of the disease. The tumor, which was shown to me, was of about the size of a man's fist. Not long afterwards, another gentleman of similar age came under my care, in whose eyes the condition of the optic disc and retina justified the same prognosis, and led me to predict a probable eventual failure of other senses, in addition to the loss of sight—which result slowly ensued. Two distinguished New York *confrères* confirmed my opinion. Despairing of aid from our profession, the patient was induced to place himself in the hands of charlatans, whose sanguine promises of relief were followed by no other results than the copious depletion of his purse, and at last he came again under the care of his family physician. The autopsy disclosed an enormous cerebral tumor, slowly formed during the six years' continuance of his disease, and which I had an opportunity to examine.

A middle-aged clergyman was brought to me by his physician, on account of failure of vision without marked cerebral or other symptoms. Surprised at my prognosis of a fatal result, as indicated by the ophthalmoscopic evidences of optic neuritis caused by cerebral tumor, his attendant asked what might be expected as to the duration of life. I said six months seemed to me a probable estimate, although it was impossible to predict with certainty. Death occurred three days beyond the above named period.

In the case of a stout middle-aged woman whom

I saw from time to time for six months, the diagnosis was made very early, but there were no severe symptoms until a short time before the fatal termination. At the post-mortem we found a tumor no larger than a filbert, at the base of the brain, surrounded by softened cerebral substance.

A *confrère* came a long distance to see me, accompanied by his physician. He had only moderate pain and lessened vision, but no diminution of intellectual or physical vigor to any great extent; although, when I made the diagnosis of optic neuritis caused by intra-cranial growth, perhaps in the cerebellum, his friend agreed with me that this explained his symptoms better than any other theory. The patient returned home, seemingly little fatigued by his journeys, but died three weeks afterwards. The tumor, found in the cerebellum, was sent to me for inspection, and was of the size of a pullet's egg.

I have seen but one instance in which the morbid ophthalmoscopic appearances were monocular: a case of a young gentleman from a Western city, who complained of lessened vision in his left eye, with a moderate degree of pain about the left temple and supraorbital region. The ophthalmoscope disclosed optic neuritis, associated with retinal hæmorrhage in the left eye; the right eye remaining normal. These phenomena, with the localization of the pain, led me to make a diagnosis of tumor between the left eyeball and the optic chiasma. Little increase of symptoms or change of ophthalmoscopic appearances occurred for some weeks; until, about a fortnight before death, the pain became greatly aggravated and extended to the eyeball itself, with much depreciation of vision. At the post-mortem I found a tumor of the form and size of a large olive, which, lying upon the supraorbital plate, had gradually caused its erosion and, at last, perforation; so that the tumor had come to press upon the eyeball, and thus to occasion the sudden increase of pain and loss of vision. There is reason to believe that had cerebral surgery been at that time in vogue, my patient might probably have been saved, and possibly his vision improved, by an early trepannation.

I cite some of these cases, in which post-mortem verification was obtained, as showing the varying character and course of the symptoms of intra-cranial tumors. The details as to their microscopic structure and the relative frequency of the different forms, as well as the coexisting functional disturbances which aid in determining the localization of the morbid growths, have been fully set forth in the results of the admirable researches of v. Graefe, Allbut, Ferrier, Hughlings Jackson, Gowers, Bramwell, Horsley and other observers. These frequently enable us, by a comparison of the indications afforded by the existing local signs, the appearances seen with the ophthalmoscope, and the varied derangement of nerve action, to designate with great accuracy the position of these intruding growths, and to estimate their development; and thus, in a large proportion of cases, we may obtain data which enable us to decide whether the conditions are such as to justify operative measures, or whether these would be inexpedient; or if reabsorption of masses having a specific origin may not, perhaps, be obtained by constitutional remedies.

We have seen that the symptoms in different cases vary greatly in intensity; not always corresponding with the size or rapidity of growth of the neoplasm, but rather with its situation and its relations to important parts. Cases now and then occur where these symptoms are very slight or even absent, and the lesion is only discovered after death. The same is true, exceptionally, as regards the characteristic ophthalmoscopic signs. Although, when present, these peculiar forms of optic neuritis and retinal apoplexy afford perhaps the most conclusive evidence of cerebral tumor, yet these are occasionally lacking, where other indications of tumor exist; or their stage of acute engorgement may subside, to be followed by atrophy of the opticus and of the retinal vessels. Even where these changes are observed in a marked degree vision is not always materially or permanently affected. But though so valuable in disclosing the existence of morbid intra-cranial growths, the ophthalmoscope seldom affords a clue as to their position, which must be determined by the concurrence of other local and general symptoms; such as limited headache, as tenderness on percussion of the skull, vertigo, paralysis or paresis of motor nerves of the eyeball or other cranial nerves—which often indicate with great exactness the situation of the neoplastic growths.

Doubtless cerebral surgery will become more and more precise and the proportion of successful operations larger, as experience determines with yet greater exactness what intra-cranial growths are and what are not amenable to surgical treatment, and what improvements may give the best results in the removal of what would be otherwise invariably fatal lesions.

INTRA-OCULAR CONDITIONS HAVING IMPORTANT RELATIONS WITH OTHER DISEASES.

Only a generation ago the suggestion that we should look into the depths of the eye to detect the presence of Bright's disease, meningitis, malaria, lead poisoning, of syphilis, of a tendency to apoplectic effusion, of albuminuria in pregnancy, or of post-partum pyæmia, would have been deemed in the highest degree chimerical;—but these, as we know, are but a few of the many lessons we may read in the retina, the optic disc, the choroid and the vitreous, by means of Helmholtz's ophthalmoscope. Not the least of the brilliant services of this instrument is its afford-

ing the proof, through its revelations at the fundus of the eye, that myopia, or near-sightedness, is not merely an inconvenient infirmity, but, in its higher degrees especially, a serious disease, having progressive tendencies and a disposition to hereditary transmission; and, moreover, that this is a disease of civilization, created or enhanced by inordinate use of the eyes in minute work. It is to be hoped that the profession may at length be able to induce ambitious parents to accept their advice as to moderation in regard to continued close application of the eyes of their children, as the only means of safety; and thus to prevent the too frequent impairment and even the ultimate loss of vision as a sequel of excessive study during the growing period, to which is so often sacrificed the most precious of the senses. In these cases, unfortunately, the victim has no other warning than our admonitions. This makes it the more important that the educated and the educating public should understand that preventive advice is the only resource at our command, and that grave alterations in the retina, choroid and vitreous, once induced, cannot be removed by treatment.

I was the first to propose, in 1853, the systematic substitution of early and continuous dilatation of the pupil by means of mydriatics in cases of iritis, in place of the indiscriminate administration of mercury which had been previously regarded as the only method of preventing occlusion of the pupil by plastic deposits in cases of this disease. I showed, in a report of more than sixty cases, that the effused lymph was reabsorbed, within a brief period, without the use of a particle of mercury, provided that adhesions of the margin of the pupil to the anterior surface of the crystalline had been prevented by free and constant dilatation; but that no amount of mercurialization would produce absorption, if these adhesions were allowed to form in default of the use of mydriatics. This method of treatment, of what may be regarded as to a large extent a self-limited disease where complications from effusions have been averted, has been largely accepted by the profession; to the great relief of thousands who in consequence of a rheumatic diathesis are subject to repeated attacks of iritis, and who are now spared the liability to persistent sialogical effects which so often rendered the mercurial remedy worse than the disease.

There is reason to believe, moreover, that this demonstration of the possibility of dispensing with a potent agent which had been regarded as absolutely indispensable in a frequently recurring disease, has had an influence in lessening the lavish resort to mercury as a panacea in almost every affection of the system. The report of Dr. Hughes Bennett, of Edinburgh, chairman of a committee of the British Medical Association to investigate the action of mercury on the secretion of bile, showed, as the result of experiments on dogs, that the flow of bile was not increased, as had been supposed, by the administration of mercury; but was, on the contrary, lessened. The published results of my experience were quoted by Dr. Bennett as affording evidence that the vaunted powers of mercury in promoting the removal of plastic effusions, which had for a long period been accepted as unquestioned, had, to say the least, been exaggerated; and he suggested that two cherished beliefs as to the *modus operandi* of this powerful drug in so very general use were perhaps without adequate foundation.

PHLEGMONOUS INFLAMMATIONS OF THE ORBITAL TISSUES AS A SEQUEL OF FACIAL ERYSIPELAS.

The last subject to which I ask attention, is the insidious formation of deep-seated intra-orbital abscesses; especially as a sequel of facial erysipelas. Until 1881 I had not seen nor read an account of a case of this sort; although Graefe had already mentioned its occurrence. In that year I saw in consultation a *confrère* who was convalescing from a severe attack of erysipelas, affecting the scalp, forehead, neck and face. The lids of left eye were still much tumefied and two abscesses had formed in the upper and one in the lower lid. A deep-seated abscess also formed in the cheek, near the ala nasi. These I opened, and there was a rapid lessening of swelling of the lids and of the serous chemosis which had formed upon the globe. All was apparently going on well, and vision was tested daily and found perfect. For two weeks there was gradual improvement, so that the lids opened and everything promised a speedy recovery. Suddenly I found one morning, at our visit, the chemosis more marked; the globe was rotated with difficulty, and vision, which had been good the previous day, was found to be wanting. There was a sense of discomfort in the region of the outer canthus. The ophthalmoscope showed slight indistinctness of the optic disc, a slight lessening in calibre of the retinal vessels, and a faint yellowish-gray aspect of the fundus of the eye. Without other indications than these mentioned, I expressed the opinion that a purulent nidus must have formed in the post-ocular cellular tissue, probably towards the outer side of the orbit. It was agreed that, after etherization, puncture should be made in the region most complained of. I accordingly made two punctures with a long and narrow Graefe knife, going carefully to the posterior wall of the orbit, a depth of more than 2 inches, without finding pus. No further attempts were thought then to be proper. On the following morning, the indications continuing as before, three more deep exploratory punctures were made; from the last of which pus was reached Drainage was established, and a moderate flow continued for three or four days. Recovery was favorable as regarded a normal as-

pect and movements of the eye, and with no noticeable atrophy of orbital cellular tissue; but there remained absolute loss of vision. The grayish-yellow aspect of the fundus, which at first led me to apprehend a possible supervention of suppurative choroiditis, slowly gave place to a slightly atrophic look, but the disc did not assume a chalky white appearance, as in ordinary atrophy of the opticus.

My presumption was, that the inflammatory processes, terminating in infiltration and abscess, must have compressed and partially obliterated the retinal vessels in their passage from the optic foramen through the orbit, and previous to their entering the optic nerve to go to the retina. The early evacuation of the abscess prevented the pus from making its way backwards through the foramen or from so far protruding the eye forwards as to cause sloughing of the cornea and phthisis bulbi; but was not in season to admit of restoration of the retinal functions.

As sometimes happens with unusual cases, this first instance seen after many years of practice was succeeded by several others grouped within a brief period; in all of which, taught by this experience, and having the good fortune to see them early after the invasion, I was able to evacuate the purulent deposit before vision had been permanently damaged or other serious results had ensued.

Soon after my first case was seen, a history of seven cases was collected and published by a German observer; of which five were fatal to life, from meningitis following infiltration into the cranial cavity.

One of my cases was interesting as having occurred during convalescence from erysipelas in a boy 9 years of age, whose vision had already become so far affected when I saw him in consultation, that objects appeared red to the eye on the implicated side. Evacuation of the very deep-seated pus was followed by recovery of normal vision.

An interesting case of deep orbital abscess, not preceded by erysipelas, was ascribed by a patient, a vigorous man of middle age, to exposure to intense cold during sleep in the open air. When seen late one evening I was enabled to determine the diagnosis, but the abscess was not reached by an exploratory puncture, although considerable relief from tension was obtained. A repetition of the incision on the following day was effectual, and rapid recovery, without damage to vision, followed the establishment of drainage.

Gradual accumulation of pus in the orbit, as a sequel of necrosis of the orbital parietes, offers less acuteness of the symptoms; and this, as well as the idiopathic and partial phlegmon of the orbital cellular tissue not very rare in young children, involves less danger to life and to vision than the acute attacks above described as supervening upon erysipelas, or than such as are due to pyæmic infection of the circulation, which usually terminate fatally. Purulent inflammation within Tenon's capsule is usually severe, and may result in loss of vision, but does not involve other dangers, as the pus generally tends towards the surface, between the insertions of two of the recti muscles. It is fortunately rare, and if early detected should be at once evacuated to afford a chance of preserving vision.

The urgency of an early diagnosis and of prompt operative interference in cases of orbital phlegmon cannot be too much insisted on. Of forty-four cases collected from all countries by Dr. A. Schwendt, of Basle, loss of vision, from amaurosis or from phthisis bulbi, occurred in about 80 per cent., and the proportion of fatal cases was 25 per cent. of the whole number, including the more benign cases resulting from orbital caries.

DR. KNAPP, of New York, said that there was a considerable literature on the orbital cellulitis and that he had collected it on the occasion of a typical case which he published in the *Archives of Ophthalmology*. The case was observed from its beginning. When the orbital tissue was completely infiltrated, the eyeballs protruded and were totally immovable, the ophthalmoscope discovered the veins large, tortuous and black, the arteries apparently absent, in reality invisible because of being empty, and very numerous dark-colored retinal hæmorrhages. In less than a week the orbital tissue became less hard, the retinal arteries were visible again and there was a new set of hæmorrhages, which were light red. The contents of the black veins showed the gradual conversion of the black thrombi into white ones, which appeared first in white sharp-cut lines, interrupted by dark red ones, which also became white, and the termination was atrophy of the optic disc, the retina and choroid, with the retinal vessels as white lines. The supposition that the ophthalmoscopic picture is best explained by compression of the orbital vessels, became much more plausible when we learned that the micrococcus erysipelatis (Fehleisen) invades by preference the lymphatics, in particular the perivascular lymphatic spaces.

I would like to point out two kinds of optic neuritis that give a relatively favorable prognosis. I mean that in children, and that connected with disseminate (alveolar) choroiditis. In the latter variety it commonly appears as a neuroretinitis, but in some cases the picture of choked disc is marked, and apt to alarm us.

DR. CHISOLM reported a case of marked papillitis occurring in a young person æt. 22, whose case was diagnosed brain tumor and treated as such by a skilled specialist and confirmed by a second, who measured the prominence of the congested infiltrated disc. By these two gentlemen the most serious prognosis was given, and early

death expected. The most conspicuous symptom was severe pain in the head, increasing on use of the eyes. No benefit or change in the discs occurring from active treatment, the case came under my care six months afterward. I found woolly discs, but no other evidences of cerebral trouble. There was some astigmatism and, believing that this irregular refraction might be the cause of the constant headache, cylinder glasses were prescribed for constant use and the use of the eyes permitted. Recovery was complete. I have recently seen the patient, after three years' interval. Her health is perfect, her eyes give her no trouble whatever. Her discs are still woolly, but no diagnosis of brain tumor is now believed.

Dr. Chisolm also reported a case of blurred vision following a case of facial erysipelas general to the head, accompanied by severe pain in the head, and for a short period by coma. Upon restoration to sensibility hearing was abolished and sight was much impaired. At no time was there any exophthalmos or indication of orbital cellulitis. Hearing has been restored. The sight, which was good before the attack of erysipelas, has never been restored. The ophthalmoscope reveals a normal fundus, nerve and retina. I deemed the case functional and expect benefit from treatment.

Dr. Leartus Connor said with reference to the inflammation of the meninges in cases of optic neuritis accompanying cerebral tumor, he had observed two cases. In case first marked papillitis was attended by the evidences of cerebral tumor. He had seen three cases of cerebral tumor in which no meningitis was to be found post-mortem to account for the disease of the optic nerve. Case first was a lad æt. 16 years.

BACTERIOLOGICAL EXAMINATION OF NINETEEN AMERICAN MINERAL WATERS IN THE BOTTLED STATE.

Read in the Section of State Medicine at the Fortieth Annual Meeting of the American Medical Association, June, 1889.

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About a year ago there appeared in the *Wiener Medizinische Wochenschrift* (Vol. xxxviii, p. 749) an article by Dr. Reinl, of Franzensbad, giving the results of his bacteriological examination of a dozen bottles of each of four of the most popular European carbonated mineral waters, the deduction being that those waters in the bottled state contained too many bacteria, and that the latter had probably gained admission during the manipulations of filling and corking. Not being able to find any records of similar experiments made on our native mineral waters, I began investigations on a more extended scale about the beginning of the present year, and continued them up to the present time. I examined 144 bottles of mineral water, including nineteen different varieties, as follows:

1. Saline naturally carbonated: Congress, Empire, Excelsior, Geyser, Hathorn, all from Saratoga, N. Y.

2. Carbonated table waters: Bethesda, Silurian, Arcadian, Henk, White Rock, all from Waukesha, Wis., and all charged with artificial CO_2; also water from the sparkling spring of Manitou, Col., the natural CO_2 of which is first collected and afterward forced back into the same water, and water from the Salutaris spring of St. Clair, Mich., which is charged with artificial CO_2 after its own natural carbonic acid has been allowed to escape. The Bethesda I also examined in the non-carbonated state.

3. Sulphur water from Blue Lick Springs, Ky.

4. Virginia Buffalo Lithia and Rockbridge alum waters.

5. Chalybeate water from Columbian spring, Saratoga, N. Y.

6. Saline non-carbonated from Colfax spring, Iowa, the Castalian water, and that from Crab Orchard, Ky.

I know that I run some risk of being considered a bacteriomaniac, but the tendency of the day is to judge of the purity of drinking water more from its bacteriological than from its chemical examination, and I think that most of you will admit that dyspeptics and convalescents, for whom these mineral waters are more especially intended, and whose stomachs are already weakened in their antizymotic powers, should not ingest more than a certain maximum of bacteria. Besides, we must also bear in mind the remote possibility of infection with pathogenic bacteria.

Bacteriological examinations of a number of European mineral springs would seem to indicate that at the source they are generally practically free from germs, especially when they contain much free carbonic acid. I know of no similar examinations of our native springs *in situ*, but suppose that most of them are as pure as those of Europe, on account of the great diversity in the number of germs shown by different bottles of the same water, probably filled at about the same time. When, for example, we find that one bottle of Empire water contains six bacteria to the cubic centimetre, another 410 mould fungi, and still another over 9,000 bacteria, the conclusion becomes quite forcible that the microörganisms were not originally contained in the water, but gained entrance by subsequent contamination.

Reinl found that the bottled water from the Franzensbader Stefanie Quelle contained, on an average, 152 bacteria to the cubic centimetre, that from the Apollinaris spring 214, that from Giesshübler König Otto Quelle 1,620, and that from Krondorfer Kronprinzessin Stefanie Quelle

2,526. It has seemed to me more correct to compare the different waters, not by the average number of bacteria given by several samples, but by the number of bottles containing more than a certain maximum; and I have, therefore, considered all those bottles contaminated which contained more than 250 microörganisms to the cubic centimetre. Viewed in this light, the first of the above European waters had two bottles contaminated out of a dozen, the second three, the third eleven, and the fourth ten. By using the average number of bacteria in making comparisons we would do great injustice to several mineral waters, for example to the Hathorn, where the average of 28 germs to the ccm., as shown by the examination of five samples, is raised to almost 70,000 by the addition of a single contaminated bottle, while the Blue Lick water shows up fairly well with an average of 1,922 germs to the cubic centimetre, although all the bottles are contaminated.

I am aware of several sources of error in my examinations which I could not avoid. In no case could I determine the length of time a water had been bottled; but we know that the bacteria in water multiply with almost incredible rapidity for a time, after which they again slowly diminish in number. A representative of one of the Saratoga waters told me that they kept their bottles on an average about six months after filling before they shipped them. It would also have been well to allow the colonies to develop for the same number of days in every case; but this was impossible, as in some cases the gelatine was completely liquefied in twenty-four hours, while in others the principal growth did not begin until three or four days had elapsed. Again, I can understand that the amount of CO_2 must vary more or less in bottles of the same kind of water. Thus, the last bottle I examined, one of Manitou, seemed to contain almost no CO_2, and this bottle, perhaps for that reason, was contaminated.

All the bottles containing carbonated water were well corked by machine and wired. The still waters were stoppered more loosely, but the corks of Buffalo Lithia and Rockbridge alum bottles were secured with circular paper seals. The bottles containing Castalian and Crab Orchard water were stoppered quite loosely with conical medicine corks. I wrote to all the springs whose waters I examined for information as to the manner in which bottles were cleansed and the carbonic acid introduced. In most cases I received very courteous replies. The Salutaris, Manitou, White Rock and Hathorn companies use the "Hoyt lightning bottle washer." The bottles for Excelsior, Bethesda and Geyser waters are cleansed by hand; those for Colfax by hand with a brush; those for Congress, Columbian and Empire waters by hand with a chain and gravel; at Blue Lick they use shot, and the Crab Orchard and Buffalo Lithia bottles are used only new and are merely rinsed. Essentially all these methods amount to the same thing. Boiling or steaming is nowhere resorted to.

In making the examinations the following steps were taken: To prevent any impurity from falling into the bottle during the pulling of the cork, the latter was first wet, after which the dirt was removed from the edges with a penknife. The cork was then wet again and wiped dry. The bottle was violently shaken for several minutes immediately preceding its opening to insure an equable distribution of the germs throughout the water. With a pipette carefully sterilized in an alcohol flame and quickly cooled, two samples, one of 1, the other of ½ cubic centimetre, were taken from the center of the bottle and transferred to two tubes of liquefied meat-water-peptone gelatine. To prevent any germs which might have collected around the edge of the cotton plug sealing the tube from falling into the gelatine, the plug was pushed in flush with the mouth of the tube and the latter heated in the flame until the cotton was singed before adding the water to the gelatine. Before plating out the mixture the neck of the tube was again sterilized by flame until the whole length of the cotton was singed, and the pouring was done as soon as the tube had become cool. Covered glass dishes were used instead of the ordinary plates, to reduce the possibility of contamination to a minimum, and these had been previously sterilized in the kitchen oven from before breakfast until after the noon-day meal. A number of these coated plates were put into a wet-chamber and allowed to hatch at ordinary office temperature for varying periods of time, according to circumstances, as above set forth. The colonies were counted directly when there were not more than about 500; only when there were very many was their number arrived at by calculation. When there was a marked discrepancy between the number of colonies developed from the two samples taken from the same bottle, the result was not utilized; otherwise the average of the two results was taken.

An examination of the following table shows that, on the whole, the number of bacteria in a water diminishes inversely with the amount of CO_2 it contains. It also shows that the microbicide action of artificial CO_2 is as great as that of the CO_2 naturally contained in a water, contrary to the deductions of Leone and Hochstetter; for although the Henk water contains large quantities of bacteria, the Arcadian, Bethesda and Salutaris are among the purest on the list. Sohnke claims that the addition of sodium chloride and bicarbonate neutralizes the inhibitory influence of CO_2 on bacterial multiplication, but we find that the White Rock water, which is thus prepared, has only one-third of its bottles contaminated, while two of Reinl's natural waters show

respectively ten and eleven bottles out of twelve infected. The germ-destroying influence of CO_2 is best shown by comparing with each other the Bethesda aerated and non-aerated waters.

Name of water.	No. bottles contaminated out of 12.	No. ccm. of CO_2 to the gallon of water	Average No. microörganisms to 1 ccm.
Arcadian	1	Artificial	52
Bethesda	1	Artificial	85
Congress	1	392.289	93
Salutaris	2	Original CO_2 allowed to escape, and artificial CO_2 substituted	59
Geyser	2	454.02	85
Silurian	2	Artificial	100
Buffalo Lithia	2		100
RockbridgeAlum	2		863
Hathorn	2	375.747	68,290
Empire	3	344.669	1,407
White Rock	4	Artificial	2,218
Excelsior	4	250	8,417
Manitou	5	Recharged with its own CO_2	886
Colfax	10		17,103
Henk	10	Artificial	25,000
Blue Lick	12		1,922
Columbian	12	272.06	2,973
Bethesda	12	Non-aerated	3,505
Castalian	12		40,189
Crab Orchard	12		150,000

As a number of these mineral waters are highly extolled as table waters to be used in large cities, on the supposition that the water supply is there very impure, and as some of the well-to-do people of my native city use one or the other of the Waukesha waters exclusively at their tables, it is worth while to examine the drinking water of Dubuque bacteriologically. The latter is derived from various sources. The city water works supply a large part of the town from a clear spring on the top of the bluffs. A sample of water drawn from the hydrant in my own yard was found to contain 86 germs to the cubic centimetre. We have also a number of artesian wells. A sample from one of these contained but 20 microörganisms to the cubic centimetre. The well and cistern water varied, according to the locality from which it was taken, from 14 to 3,200 germs to the cubic centimetre. As those people who have access to the purest supply of their own city are precisely those who use the mineral waters, further comment is unnecessary.

In order to still further satisfy myself about the rôle played by the manipulations of bottling in contaminating the mineral waters above examined, I made a few control experiments.

Two bottles were carefully washed by hand with shot and hydrant water and rinsed three times with changes of clean water from the same source and allowed to drain, in an inverted position, in a room free from dust. A third bottle was boiled for an hour and allowed to drain in the same way. The three bottles were then filled with hydrant water which had been boiled for an hour and allowed to cool while well covered. Bottle No. 1 was loosely stoppered with a conical medicine cork; into the other two large boiled corks were driven with a corker. All three were allowed to stand in a warm room for five days, at the end of which time their contents were examined by the method above described. No. 1 contained 100,000, No. 2 500,000 germs to the cubic centimetre. The tighter cork of No. 2 had not prevented contamination. The bacteria had, therefore, probably been in the bottle, and did not enter along or through the cork. No. 3 contained 725 microörganisms to the cubic centimetre; as I had carelessly dropped the cork upon the floor, the contamination was accounted for. I repeated the experiment with a fourth bottle, which was treated precisely as the third had been, except that I was more careful with the cork, and examination at the end of six days showed 66 germs to the cubic centimetre.

RÉSUMÉ.

1. The bacteria in bottled mineral waters are probably not derived from the spring, in the majority of cases, but are due to contamination from the bottles and corks, the cleansing methods now in vogue being insufficient to destroy them.

2. Carbonic acid in a bottled mineral water has a powerful inhibitory influence on the development of germs, whether the gas is natural to the water, or has been artificially generated and added to it. When the proportion of CO_2 is 350 cubic inches or more to the gallon, the retarding influence of the gas is very great. It is much less when the proportion is only 250 cubic inches to the gallon. But among every dozen bottles of even the most highly carbonated waters there is at least one which contains more than 250 microörganisms to every cubic centimetre, and ten even out of twelve bottles may be thus contaminated. When the water is charged artificially some time may be given for contamination before such charging is accomplished.

3. Sulphureted hydrogen gas, in the proportion contained in mineral waters, probably has some inhibitory influences on the development of germs, but not to the extent which might be *a priori* expected.

4. As regards freedom from bacterial contamination, most of our native carbonated mineral waters are superior at least to several of the most popular European waters of the same kind.

5. The non-aerated so-called table waters are probably very inferior to ordinary hydrant water.

6. The strongly saline non-carbonated mineral waters are so badly contaminated as to be wholly unfit for internal administration in the form in which they are at present put up, unless the germs are previously destroyed by heating (for two hours at 70° C.—Reinl).

7. In order to bottle at least a non-carbonated mineral water in such a way that it will remain bacteriologically pure for an indefinite period, the bottles should first be boiled or steamed, kept

in an inverted position in a place free from dust until cool, then immediately filled and closed with boiled corks.

CONGRESS.

No.	No. days growth.	No. germs to 1 cm.	Character of Colonies.	Morphology of Micro-organism.
1	13	2	. . . . .	. . . . .
2	2	2	. . . . .	. . . . .
3	2	7	. . . . .	. . . . .
4	3	55	. . . . .	. . . . .
5	3	63	. . . . .	. . . . .
6	3	32	. . . . .	. . . . .
7	3	3	. . . . .	. . . . .
8	4	8	. . . . .	. . . . .
9	3	18	. . . . .	. . . . .
10	4	460	. . . . .	. . . . .
11	4	223	Mostly black, opaque, rounded and elliptical colonies.	Short bacilli with straight ends, 1-1½ m. long and about 1 m. broad; some again as long, the shorter almost square.
12	5	240	Principally very small, circular, transparent, almost invisible colonies.	. . . . .

HATHORN.

1	16 hrs	409,600	Many liquefying colon's.	. . . . .
2	3	1	Bacteria	. . . . .
3	3	2	Bacteria	. . . . .
4	4	93	Two of b. subtilis, others mould fungi.	. . . . .
5	5	5	1, sarcinæ; 2, dark circular discs.	Bacilli 1.65-3.35 m. long and .83-1.25 m. broad, with rounded ends, some pointed, others clubbed, single and in twos, slightly mobile.
6	4	40	Majority are sarcinæ. .	. . . . .

GEYSER.

1	2	395	Solid, yellow to brown, well-defined, circular discs, almost homogeneous.	Very sm. bacilli with rounded ends, 1.65 m. long and half as broad, but some no longer than broad, single, very rarely double, no large chains, motionless; about 10 per ct. b. subtilis.
2	5	10	. . . . .	Mostly sarcina, but also some b. subtilis.
3	5	16	. . . . .	Sarcina . . . . .
4	6	29	. . . . .	B. subtilis, sarcina, and diplococci
5	2	44	Liquefying colonies. . .	. . . . .
6	6	13	. . . . .	B. subtilis . . . . .

ARCADIAN (AERATED).

1	4	37	Sarcina and moulds. . .	. . . . .
2	4	7	Mostly moulds	. . . . .
3	3	10	. . . . .	. . . . .
4	4	11	. . . . .	. . . . .
5	4	7	. . . . .	. . . . .
6	5	10	. . . . .	. . . . .
7	3	3	. . . . .	. . . . .
8	2	334	All moulds	. . . . .
9	4	135	Liquefying	. . . . .
10	4	37	. . . . .	. . . . .
11	3	16	. . . . .	. . . . .
12	2	22	. . . . .	. . . . .

HENK (AERATED).

1	2	8	Moulds	. . . . .
2	3	About 15,000	Small, circular	. . . . .
3	3	About 25,000	Small, circular, yellowish-gray, bounded by sharp ontline, shaded with short lines.	Strongly curved, active bacilli, 2½ to 3½ m. long and ¾ m. broad, with rounded ends, variously distorted.
4	3	40,500	1. Small, circular and lemon-shaped, well-defined, greenish yellow, very faintly granular. 2. Large, superficial, grayish, kidney-shaped.	1. Small motile bacilli . . . 2. Bacilli 1½ m. long and ½ m. wide, single and in twos, motionless.
5	3	45,000	Same as 4.	Same as 4. . . . .
6	3	27,500	" as 3, also some of 4-2	. . . . .

EMPIRE.

No.	No. days growth.	No. germs to ccm.	Character of Colonies.	Morphology of Micro-organism.
1	4	410	Principally mould fungi	. . . . .
2	13	38	Bacteria.	. . . . .
3	1	9,689	"	. . . . .
4	3	29	"	. . . . .
5	2	132	"	. . . . .
6	4	45	"	. . . . .
7	3½	242	Mostly solid, some liquefying.	. . . . .
8	2½	51	Bacteria.	. . . . .
9	2	6	"	. . . . .
10	4	125	Light green, circular. . .	Curved bacilli, alone, also in twos and threes.
		12		
11	4	12	Almost all mould fungi.	. . . . .
12	5	6,103	Mostly small yellowish circular colonies, with sharply defined outline.	Slightly curved bacilli with rounded extremities, 1½-2 m. long, alone and in twos.

EXCELSIOR.

1	5	15	Elliptical colonies. . . .	Sluggish, plump bacilli, generally in twos, round ends, 1.65 m. long.
2	6	31	20 per cent. mould, remainder sarcinæ.	. . . . .
3	5	21	Mostly round, solid dark colonies.	Irregular cocci, single, in zoöglœa; also in short chains of two and three.
4	5	34	Sarcina, also dark colonies of slightly irregular outline.	Diplococci of large oval cocci.
5	4	400	. . . . .	Very small, very active bacilli, rounded or pointed ends, in twos and threes, not equally stained.
6	5	About 50,000	Mostly sm. round white colonies, greenish-yellow under microscope.	Plump bacilli, 1.65 m. long, in twos and threes, sluggish motion.

BETHESDA (AERATED).

1	6	87	. . . . .	. . . . .
2	4	50	Mostly sarcina	. . . . .
3	5	80	Mostly sarcina, a few moulds.	. . . . .
4	6	4	Irregular, not well-defined, superficial, colorless, transparent.	Bacilli, almost cocci, mostly in twos, sometimes three of varying shapes and sizes in one chain, some rounded ends, some pointed, some wide at one end and pointed at the other.
5	5	106	Small, circular, also a few sarcinæ.	Bacilli 2-2½ m. long, ⅓ as wide, in twos and threes.
6	5	50	Solid, round, brownish.	. . . . .
7	3	373	Brownish, coarsely granular, without sharp boundary.	Large bacilli, 3.35-3.75 m. long and 1.25 m. broad, single and in twos.
8	4	26	. . . . .	Sarcina . . . . .
9	4	43	. . . . .	Sarcina . . . . .
10	4	28	. . . . .	Sarcina . . . . .
11	5	23	Yellow, circular.	Bacilli with rounded ends, 2.5 m. long and half as broad, some not much longer than broad.
12	6	155	Liquefying	Very mobile, short, diplobacilli.

SILURIAN (AERATED).

1	4	5	. . . . .	. . . . .
2	4	28	. . . . .	Sarcina . . . . .
3	3	22	. . . . .	B. subtilis . . . . .
4	3	5	. . . . .	. . . . .
5	. .	507	Round, finely granular.	Bacilli. . . . .
6	. .	34	. . . . .	. . . . .

SALUTARIS.

1	3	267	Brownish-yellow, circular, granular.	Bacilli resembling b. subtilis in shape, size and motion, but not growing to such long filaments.
2	4	25	. . . . .	. . . . .
3	4	21	Moulds and sarcina. . .	. . . . .
4	3	4	Sarcina	. . . . .
5	4	15	Sarcina and moulds. . .	. . . . .
6	3	20	Sarcina and moulds. . .	B. subtilis . . . . .

WHITE ROCK (AERATED).

No.	No. days growth.	No. germs to 1 cm.	Character of Colonies.	Morphology of Micro-organism.
1	4	33	. . . . .	Sarcina . . . . .
2	4	114	10 per cent. moulds. . .	Majority sarcina . . . . .
3	4	10,678	Mostly very transpar'nt, almost colorless, circ'r.	. . . . .
4	2	2,325	Almost all large, circular, brownish colonies without well-marked border, but having short hairs projecting into surrounding gelatine.	Mobile bacilli, growing into long threads.
5	3	15	. . . . .	Sarcina . . . . .
6	2	About 140	Much of gelatine liquefied.	. . . . .

MANITOU.

1	4	About 1,800	Liquid	Bacilli, 83 m. long and almost as thick; rounded ends, generally as diplococci, quite mobile.
2	5	74	. . . . .	Mostly sarcina lutea . . . .
3	4	7	. . . . .	. . . . .
4	3	About 2,500	1. Great majority sharply-contoured yellowish discs. 2. A number of double-contoured colonies with radiating lines.	Motionless bacilli, 1.66—2.35 m. long and .85 m. thick, with rounded ends, some not much longer than thick, single and in twos; very minute, active bacilli.
5	5	125	Small, circular, liquefying	Short, plump bacilli, with rounded ends, in twos, rarely longer chains; also some threads; swim rapidly through field.
6	3	141	Yellow and brown, slowly liquefying.	Short, plump, diplo-bacilli, with rounded ends, centre often unstained, not very active.
7	5	10	. . . . .	Sarcinæ . . . . .
8	2	3,414	. . . . .	. . . . .
9	2	17	Moulds	. . . . .
10	3	768	Solid colonies & moulds.	. . . . .

ROCKBRIDGE ALUM.

1	3	26	. . . . .	. . . . .
2	4	26	. . . . .	. . . . .
3	2½	88	. . . . .	. . . . .
4	2½	19	Half moulds, half solid, one liquid.	. . . . .
5	5	18	Liquefying	. . . . .
6	5	About 5,000	. . . . .	Many sarcinæ aurantiacæ .

BLUE LICK.

1	4	488	. . . . .	. . . . .
2	3	2,267	Elliptical, somewhat irregular.	Plump, somewhat mobile bacilli, in twos and threes, forming zoöglœa.
3	4	4,088	About half as in 2; the other half similar colonies.	Same as 2; streptococci in chains of 2-8 links.
4	2	1,000	Many liquefying	. . . . .
5	3	1,767	Mostly small, white, round colonies, greenish-yellow under microscope.	Plump bacilli, 1.66 m. long, in twos and threes, sluggish; also quite a number of sarcinæ.

COLFAX.

1	1	2,491	. . . . .	. . . . .
2	3	141	Bacteria and moulds . .	. . . . .
3	2	2,200	. . . . .	. . . . .
4	2	. . . .	Principally granular, yellow to brown, circular discs.	Bacilli with rounded ends, mostly single, rarely in twos, never in longer chains.
5	4	100,000	Half sarcina, other half irregular brown solid colonies.	Bacilli, somewhat curved, about size of tubercle bacillus, with clubbed extremities, single and in short chains, extremely active, some shorter and thicker.
6	3	789	Brownish discs and irregular colonies.	Both kinds of colonies consist of short bacilli, not much longer than thick, generally in twos, so active that their shape can hardly be distinguished in hanging drop.

BUFFALO LITHIA.

No.	No. days growth.	No. germs to 1 cm.	Character of Colonies.	Morphology of Micro-organism.
1	3	20	. . . . .	. . . . .
2	3½	41	. . . . .	. . . . .
3	5	142	75 per cent. are moulds.	Some sarcina and b. subtilis
4	6	21	25 per cent. are moulds.	Mostly sarcina . . . . .
5	4	61	Liquefying	. . . . .
6	3	312	. . . . .	Probably all sarcina . . . .

COLUMBIAN.

1	3	1,721	Solid, almost circular, well defined, somewhat darker in centre.	Bacilli, slowly mobile, slightly curved, ends generally pointed, 1.66-3.35 m. long and .85 m. thick, in chains of two and three.
2	2	9,225	Same as 1; also same number of similar colonies.	Same as 1; very small, active bacilli, almost cocci, in twos and also in chains of two and three; also some b. subtilis.
3	3	3,066	. . . . .	. . . . .
4	2	2,700	About 1 per cent b. subtilis, the others round and elliptical colonies.	. . . . .
5	4	684	Solid, superficial, greenish-yellow, circular.	Bacilli in twos, 1.66 m. long and half as wide, slowly mobile.
6	4	441	Same as 5	Same as 5 . . . . .

CASTALIAN.

1	3	8,136	. . . . .	. . . . .
2	2	76,275	Bacteria	. . . . .
3	1½	36,156	Moulds and bacteria . .	. . . . .

CRAB ORCHARD.

1	2	About 150,000	Solid	Short shuttle-shaped bacilli, often in twos, but rarely in longer chains, often with an unstained spot in the center.
2	2	About 150,000	Majority are sharply defined, circular, granular, brownish colonies; also many large superficial, greenish, irregular colonies.	
3	2	About 250,000	Same as 2	Same as 2 . . . . .
4	2	About 150,000	1. Circular, finely granular colonies, darker in center than at edge, slowly liquefying. 2. Very light circular colonies, showing fine concentric lines. 3. Resembling pus corpuscles. 4. Resembling typhoid colonies.	1. Bacilli 1.65 m. long and half as thick, in twos. 2. Bacilli much finer than preceding. 4. Large bacilli of uniform size, 2.5 m. long and 1.2 m. thick, single and in twos, and also in threads of two or three bacilli.
5	2	About 100,000	First two varieties of 4.	First two varieties of 4 . . .
6	2	About 100,000	Same as 5	Same as 5 . . . . .

BETHESDA (NON-AERATED).

1	3	About 3,000	Liquefied	. . . . .
2	2	2,750	Great majority coarsely granular brown colonies, circular, with roughened outlines; many not bacilli.	Motionless threads, 2.5-6.5 m. long and ½ m. broad.
3	3	2,237	Root-shaped bacillus . .	. . . . .
4	4	2,400	Many of root bacillus . .	. . . . .
5	4	3,000	Root bacillus	. . . . .
6	3	8,644	Many colonies of root bacillus	. . . . .

SULPHOLEINIC ACID has been called "polysolve" by Mr. H. Wilson, of Manchester. This product is produced by the action of sulphuric acid upon any kind of vegetable oil, and when concentrated is a yellow viscid liquid. It is capable of dissolving a large number of organic and inorganic substances, 2 per cent. of sulphur, 3 per cent. of iodoform, 25 per cent. of camphor, etc.—*Pharmaceutical Jour. of New South Wales.*

THE MANAGEMENT OF LARGE HERNIÆ.

Read in the Section of Surgery and Anatomy, at the Fortieth Annual Meeting of the American Medical Association, June, 1889.

BY J. COLLINS WARREN, M.D.,
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The interest at present felt by the surgical world in the radical cure of hernia is so great, and so many methods of treatment are being brought forward, that it has occurred to me that the grouping together of a number of examples of the extreme degree to which hernia may attain, and to relate my experience in their management, might not be without interest to the members of the Association.

The very large herniæ appear to have a *raison d'être* in each case; that is, the patient usually suffers from some form of disability which prevents him or her from exercising that control over a hernial tumor which an able-bodied and intelligent person is usually capable of doing. In a large number of cases obesity is a predisposing cause, especially in umbilical herniæ in women. A stout, middle-aged, swag-bellied woman who has borne children is particularly liable to this form of hernia. An examination of the abdominal parietes of such an individual will show a large semi-lunar fold running in a sort of festoon across the abdomen and containing at its centre a depression, marking the umbilicus. The size and weight of this fold of skin and adipose tissue must exert a strong traction upon the cicatricial tissues of the umbilicus, and the abdominal parietes at this spot must, therefore, be disposed to yield to pressure, especially if weakened by the distension of numerous pregnancies. In a laboring and ignorant woman a tumor once developed is not likely to grow any smaller, and soon becomes irreducible. If the intelligence of the patient is at all impaired, the conditions for the development of a large hernia become unusually favorable.

The type of man usually afflicted with a large scrotal hernia is two-fold. Either he is a middle-aged active business man, so engrossed with his work or of so careless a temperament as to have neglected his disease until driven to treatment by fear of permanent disability; or he is an old and feeble individual, or so obese as to be unable to manipulate the parts so as to effect a reduction, or with insufficient intelligence to apply and keep in place a truss.

Finally we have children with congenital hernia, whose position in the social scale is so lowly that the little patient has never been able to receive proper care, and an unusually aggravated form of hernia is the result.

The cases which I shall present to you for your consideration represents fairly well each of these types of this affection. No special plan of treatment has been adopted applicable to them all, but each case has received such treatment as the special conditions governing it seemed to call for. Most of them have, however, had this in common, that a preliminary treatment was applied in all, consisting of pressure, with rest in the inverted position; that is, with the hips raised and the shoulders lowered. The object of this position is to reverse the conditions under which the gradual formation of the tumors occur; that is, pressure and gravity combine now to return the intestine and omentum to the abdominal cavity, as they had before combined to protrude them through the ring. The so-called inverted position is produced by raising the foot of the bed and so arranging pillows and mattresses as to make the ring the highest point af the abdominal parietes. Pressure can be made by sand or shot bags, or by the rubber band or special apparatus devised for the purpose. Usually, however, the position aided by sand bags so greatly reduces the size of the hernia that it can be reduced readily by taxis under ether. When it was not possible to retain the herniæ by any form of apparatus after considerable trial, the radical cure was then attempted.

Case 1.—Large scrotal hernia, twenty-five years' standing.—H. H. R.,[1] 45 years of age, had developed a small hernia during college life, but as it increased very slowly, had used no truss, nor had at first made any systematic attempt to reduce it. At the time I saw him he was exceedingly stout, his greatest weight reaching 340 pounds. The enormous size of the scrotum, a portrait of which, sketched by the patient himself, giving the exact size, I here show you, measuring 17 inches from the base to its most dependent portion, caused, after active exertion, the development of a troublesome eczema. After a hard week's work he would go to bed on Saturday and give the scrotum a chance to recuperate itself until Monday morning. Unsuccessful attempts at reduction had been made in Paris, London and New York, on at least one occasion under ether. On explaining the method of reduction by pressure to the patient, who was a skilled architect, he entered heartily into the plan and a bed was made of special strength and a frame work built around it by his carpenter, with an apparatus for hoisting the hips or body, as might be desired. The foot of the bed was raised, the scrotum was held vertically in a hard rubber splint made for the purpose, and pressure was exerted by shot and sand bags. A rubber bag that could be inflated rigid externally but flexible internally, and exerting a sort of uterine pressure, was made for this case by the Davidson Rubber Company. By the time this bag was ready for use the tumor had been reduced to one-quarter of its original size. The bag having been fitted over the hernia and held in place by bandages, pressure was exerted by water introduced into it, and, at the end of eight weeks, the hernia was reduced. The opening in

[1] Boston Medical and Surgical Journal, March 18, 1880.

the ring had a length of four finger breadths. The patient was not able to use a spring truss, but the hernia was retained with ease by a buckle and strap apparatus. The patient led a most active life after this, going up and down ladders and traveling great distances without any local trouble. He died about five years later of Bright's disease.

Case 2.—Large scrotal hernia, twenty years' standing.—This patient was about 40 years of age, the proprietor of a large factory, and an active business man. The tumor was about the size of an infant's head of six months and irreducible. It was chiefly omental, the amount of intestinal contents being small. A six weeks' rest in the recumbent position, with the foot of the bed raised and pressure with sand bags and occasional use of the rubber bandage, reduced the tumor so much that only one or two large nodules of omentum remained that could not be forced through the ring. Ether was accordingly given, and by vigorous manipulation the lumps were reduced. A truss fitted by Dr. Green, of Leach & Green, has held the hernia perfectly, and the patient has since, during a period of eighteen months, been actively engaged in business.

In neither of these cases did it seem advisable to attempt a radical cure. In case No. 1 the large size of the ring, its great depth below the surface, owing to the presence of large masses of fat, and the existence of Bright's disease, were sufficient grounds for not advising an operation. In case No. 2 suture of the rings might have been attempted, but unless I could guarantee a result which would make a truss unnecessary, it seemed to me preferable to try the treatment by reduction with subsequent use of the truss. This has proved so satisfactory that the question of operation has not been raised since.

The following cases show some of the difficulties to be met with in dealing with large umbilical herniæ:

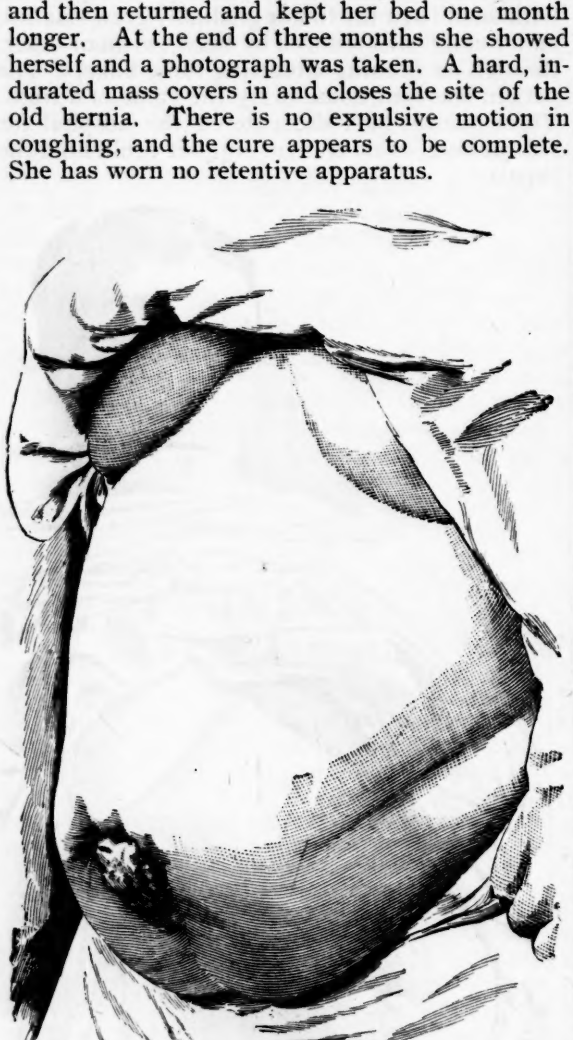
Case 3.—Umbilical hernia; reduction by taxis.—Mary L., 43 years of age, entered the hospital on November 6, 1883. She is very stout, weighing over 200 pounds. A lump has existed at the navel for over ten years. It has increased in size, slowly diminishing at times, but never entirely disappearing. She has now a hernia the size of a small cocoanut, which emerges through an irregular opening apparently just below the umbilicus. Pressure by weight in the recumbent position entirely reduced the hernia, so that a truss could be fitted which held the hernia comfortably.

Case 4.—Large umbilical hernia; operation for radical cure.—Mrs. Rice, 45 years of age, mother of a family and a very large and stout woman, noticed a bunch about the size of a marble protruding from the navel. This gradually increased to the size of a fist, but could be put back. For the last five years the tumor has been irreducible and has increased considerably in bulk, and the patient has suffered from frequent attacks of abdominal pain, nausea and constipation. On examination a hernia the size of a child's head (8 inches in diameter) was seen bulging from a broad abdominal fold. It was tympanitic and evidently consisted chiefly of intestine. By rest in bed with the foot raised for a month and pressure with sand bags the tumor gradually grew smaller, and finally was reduced by taxis, without ether, through an opening admitting three fingers. The patient was sent home to try the value of a truss. Three months later she entered the hospital for radical cure, as no truss or support could hold the hernia.

Case 4.—Before operation.

A median excision about six inches long laid open the sac. There were numerous bands and adherent masses of omentum, between and around which protruded the intestines. The appendix was adherent to the right wall of the sac and also a portion of the colon. These were dissected off, the bands were divided and portions of the omen-

tum removed. The edges of the ring were brought together with six silk buried sutures, and the opening in the sac was then closed with superficial silk sutures, a small portion of it having been excised. The wound healed by first intention, with the exception of a small tube sinus, which closed at the end of two months. The patient remained in the hospital one month and then returned and kept her bed one month longer. At the end of three months she showed herself and a photograph was taken. A hard, indurated mass covers in and closes the site of the old hernia. There is no expulsive motion in coughing, and the cure appears to be complete. She has worn no retentive apparatus.



Case 4.—Six months after operation.

Twelve months after the operation she was sent for and reported that she had been in perfect health and actively at work—never better for many years; had used no apparatus. A slight return of the hernia was found, of the existence of which the patient was unaware. Since that time has worn an abdominal belt, which prevents the hernia from increasing in size.

Case 5.—Large umbilical hernia; operation for radical cure.—L. S., 60 years old, married, youngest child 25 years old; stout and unwieldy; mental standard not a high one. Entered hospital with an umbilical hernia considerably larger than a child's head. First noticed a rupture at the umbilicus thirty-five years ago, after jumping from a carriage. On examining herself, found a tumor about the size of a fist. Used at times a truss and a swathe. Five or six years ago it began to be very painful, and during the past year has increased rapidly in size. It has never been reduced. Has a history of epileptiform seizures at night. The circumference of the abdomen at umbilicus is 42 inches. The hernial tumor is lax and soft when patient is lying down, and the skin over it at points exceedingly thin. It measures 13½x14 inches. After a week's rest in bed with sand bags over tumor the patient was etherized, and after three-quarters of an hour's taxis the whole mass was reduced through the ring, which was large enough to admit four fingers. The ring was padded and supported with a large adhesive plaster swathe. During the next two weeks the hernia was controlled by bandages, but it was evident that no truss would hold it, and the patient was accordingly etherized again and the sac laid open. In the interior the bowels were found nested in a large number of pouches. A considerable portion of the ascending colon, with the vermiform appendix, was found pointing in front, with a large portion of small intestines behind it. The appendix was so adherent that it had to be excised, in order to reduce the colon and its appendages so that they would remain without tension within the abdominal cavity. Many bands were divided and fragments of omentum excised. The edges of the ring were then brought together and sutured with six coarse silk sutures. The integuments were then brought together with silk sutures and two drainage tubes inserted. The wound healed apparently by first intention, and there was but slight pyrexia. There was considerable mental disturbance following etherization, and the patient tried to get out of bed the first night. This condition, however, soon passed away, and the wound had apparently healed when an abscess formed in one of the mucous pouches. This was opened, but the fistula has not yet healed, six months since the operation. The patient is about with a large pad over the umbilicus, at which a tumor about one-quarter of the original size presents. An examination shows that the stitches in the ring have yielded.

Case 6.—Double congenital hernia; MacEwen's operation. Chas. Green, 11 years old, small of stature and below average intelligence, entered the hospital April 28, 1888. Six years before had been advised by me to wear a truss, which had been used from time to time with slight success. The photograph gives an inadequate idea of the hernial tumor, which reached one-third of

the distance to the knees when fully distended. The rings were so large that the first finger and thumb of one hand could be introduced into the rings and made to meet easily in the abdominal cavity when the herniæ had been reduced. On May 1st the right hernia was operated upon by MacEwen's method for congenital hernia, *i. e.* a portion of the sac was left behind to form the tunica vaginalis. The wound was closed with a continuous catgut suture and healed by first intention. Three weeks later the other side was operated upon in the same manner. A small sinus remained for a few weeks, which had healed by July 1st. Was discharged without a truss August 1st. On his removal from the convalescent ward he had a urethral calculus and retention of urine at his home, which put the cicatrix to a severe strain, but he went through the ordeal successfully. Examined by me nine months after the operation, a slight return of both herniæ had occurred as the result of falling down the cellar stairs backwards. He still wears no truss, but the hernial tumors are small and do not trouble him. His family having removed to Providence, I have been unable to see him a second time.

Case 7.—Large scrotal hernia in an old man.—The photograph of this case, which I show you, gives a type of a certain class of cases of hernia, easily reducible, but which have been allowed to grow to an enormous size owing to the mentally or physically feeble condition of the patient. The present case is an Italian who does a certain amount of work, but is unwilling to buy a cheap apparatus or put himself permanently under treatment. The hernia is quickly reduced by the patient by catching it between the thighs, which give diffused pressure, when reduction is finally effected by the hands. For this class of cases I am in the habit of advising a large suspensory bandage made of jean cloth, which effectually prevents increase in size, reduces considerably the size of the hernia, and gives the patient a comfortable sense of support. The large size of the ring renders strangulation extremely improbable. These herniæ sometimes are subject to attacks of local peritonitis, but the use of the support is a good prophylactic against this accident.

Case 8.—Large incarcerated hernia reduced by Dr. Warren's method, by C. W. Galloupe, M.D., Harv. 1883, of Lynn, Mass.—My patient is a large-boned, heavy man, 46 years of age. At the age of 17, while in the act of lifting a cask weighing 825 pounds into the rear end of a wagon, his foot slipped a little on the snow, and he felt a sudden stinging pain in the left groin. This pain continued, and at the end of a week or ten days he noticed a swelling in the groin as large as the end of a thimble. He kept constantly at work, however, until at the end of two years his father noticed that he seemed weak and disinclined to lift. He then explained the cause of his laziness, and at that time examination disclosed a bunch the size of a hen's egg.

An iron truss was applied by a country practitioner, which was discarded the next day on account of the pain it caused. In five years from the date of injury it had dropped down into the bag, and he was then fitted to a knitted bag, which acted as a suspensory. The rupture had increased constantly but slowly up to a year ago, when it was about the size of a cocoanut. At that time he jumped from a horse-car and felt a sudden yielding, while the rupture doubled in size in an hour's time. Since then it has steadily increased and has prevented him from doing any active work. There has been but little pain, but a constant pull and drag that has made him an invalid and has led him to indulge freely in alcoholic stimulation.

At the time I first saw him, March 28, 1889, the hernia measured 25½ inches in circumference around its base, 30 inches around its largest part, and its length from pubes to center of perineum was 17 inches. It was of the left inguinal variety, but on account of its size, and the fact that it had dissected up the skin from the lower part of the abdomen and from the upper part of the thigh, the ring could not be felt nor the contents mapped out. He was placed supine on a hard bed with the foot elevated 10 inches, the bowels evacuated and the diet restricted to concentrated and digestible foods. At the end of forty-eight hours the œdema of the scrotum had subsided sufficiently to disclose the nature of the contents of the sac. The upper portion contained many coils of gut, while the lower part and the part next the ring were solid and nodular. Efforts at reduction were made and a considerable part of the gut returned. A cotton bandage was then applied in circular turns to form a pedicle to the mass, and three sand bags, of 3 and 5 pounds weight, laid on the top, while a broad sling over the shoulders and around the neck held the mass vertical. On the fifth day the intestine could be all reduced, and the mass measured 21 inches in circumference by 14 in length. The residue was omental, the chief obstacle being a hard, solid cake 4 inches in diameter and 2 inches thick. The ring could be felt easily, admitting three fingers. From the outset the cotton bandage was applied once or twice daily, and after a few days a rubber bandage outside the cotton. No attempt was made to exert pressure by bandaging across the top, as the effect of this was to gradually squeeze the mass out under the ring of bandage and cause the whole apparatus to slip off. For the same reason the sand bags were of but little value, the chief reliance being placed upon daily manipulation to break up the omental lumps and dilate the ring, while the tight circular bandage caused an internal tension which constantly tend-

ed to squeeze out the contents of the sac. No pain was felt at any time unless the rubber bandage was too tight. If applied directly to the skin it would roll up and cut in uncomfortably, so that the following plan was adopted: Ten yards of cotton bandage, 2 inches wide, were wound around close to the abdomen, including the penis and testicles, each turn being wound still closer, so as to form a hard constricting collar about 4 inches wide; outside of this was wound the rubber, being worn about three hours at a time.

On April 14th, the seventeenth day of treatment, while squeezing the omental cake, it seemed to separate on one edge and open out to form a crescentic mass, which was insinuated by its smaller end into the ring and by dint of steady pressure was wholly reduced, exposing an opening through the abdominal wall which easily admitted four fingers. A graduated compress and spica bandage retained the hernia, and two days later the patient was up and around the room with a water-pad truss on. Much difficulty has been found in getting a truss which would retain the omental lumps, but no intestine has escaped since the first reduction. The patient is attending to his daily work and has gained considerable fat since he got up, while the scrotum has shriveled very greatly and the ring has closed up about one-half.

An incarcerated hernia of this size was not a very promising case to undertake, more especially as it had proved itself unyielding to many physicians during the past twenty or thirty years; but having had the satisfaction of tending a number of such cases under Dr. J. Collins Warren, in the Massachusetts General Hospital and in private practice, I was encouraged to try it by his method of treatment. The result shows the value of his method, and the freedom from pain and danger will make the patient readily consent to it.

I regret to say that I have not yet succeeded in effecting a radical cure in any of these cases; but I may add that all the patients have been fully satisfied with the result of their treatment. I would recommend strongly the method of gradual reduction by pressure to the members of the Section. I do not advance it as a new method, for it is in reality exceedingly old, but I don't think physicians generally realize how much can be accomplished by it.

In the large umbilical herniæ the failure to get a permanent cure is due, I think, to the neglect to excise the edges of the ring before suturing. In order, however, to bring the different layers of the abdominal walls together, as in a laparotomy, the amount of dissection necessary would have greatly prolonged the operation and might have increased the danger. On another occasion, however, I think I should attempt it even in as complicated cases as these were.

ADVANCEMENT OF THE TREATMENT OF INSANITY DURING THE NINETEENTH CENTURY.

With Notes upon the History of the Treatment of the Insane in Louisiana, up to the Close of the Year 1859.

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THE ADVANCEMENT IN THE TREATMENT OF THE INSANE DURING THE NINETEENTH CENTURY.

Dr. Benjamin Ward Richardson, of London,[1] in a recent article, entitled, "Medicine Under Queen Victoria," dated July 25, 1887, has clearly shown by indisputable facts, that this first great advancement in the science of medicine commenced *practically* in the year when Queen Victoria ascended the throne half a century before, and consisted in the *adoption of the method of treating the insane without violent physical restraint.*

What the practice of medicine in the treatment of the insane had been previous to 1837, it is in this day almost impossible to conceive.

Dr. Benjamin Ward Richardson says:

"There was in it no science and certainly no humanity. I remember perfectly as a youth, climbing the wall of a barn in order to look through a small grated window at a poor lunatic, who for twenty-five years had been chained in one corner of the place, and in that condition had been retained and kept by his relatives as a dog, or other savage animal might have been. He was bedded down in straw just as other animals were, and except that it was put for him on a platter his food was given to him as might have been given to a dog. He took his food in his hands and tore it with his teeth, the idea being that it was not safe to let him have a knife or a fork, or anything more than a wooden spoon as a help for feeding. The people who had this man in charge were not more cruel than the rest of mankind. They labored under the idea that it was for the safety of themselves, and on the whole for the benefit of the insane man that he should be kept as he was kept. Had he been set at large he would have done some mischievous or dangerous thing for which he would have been punished, and for which they would have been responsible. It is true, they might have sent him to a madhouse, but there he certainly would not have been better cared for than at home. He would have been under the rod of strangers, and might have been exhibited as a show to those

[1] The Asclepiad: "A book of original researches and observations in the science, art and literature of medicine, preventive and curable." By Benjamin Ward Richardson, M.D., F.R.S. Third quarter, 1887, page 207. Longmans, Green & Co., Paternoster Row, London; J. Blakiston, Son & Co., Philadelphia, U. S. A.; Cupples, Upham & Co., Boston, U. S. A.

who were curious for strange sights. He might also have been irregularly fed or imperfectly clothed to meet the various seasons. As it was he was kept out of mischief; he did not complain, he gave little trouble, and he was not merely safe himself, but was a safeguard to the lonely home or lodge attached to the barn in which he was domiciled. For strangely enough the poor helpless creature was a terror to the superstitiously wicked, to the prowling vagrant, the thief, the burglar, and the incendiary. When he cried or howled or laughed maniacally, the wicked were alarmed into flight. The notion in those days was also common that the insane at particular times were under the influence of the moon; that lunacy was a lunar problem was indeed a belief as absolute as that the moon itself appeared monthly in definite quarters, and that she governed the tides. This belief is not effaced yet, but so strong was it at the period of which I was speaking—the latter part of the last reign—that the brother of the lunatic, to whom reference was made above, would make his calculations as to the states of mind into which the lunatic would pass by reckonings of the moon, and sometimes it really seemed as if his predictions were correctly cast.

"As an illustration of the barbarities which were practiced in these institutions, my late friend, the distinguished George Cruikshank, gave me this engraving, which he etched in his time from an original drawing by G. Arnald, F. R. A., of a man named William Norris, an insane American, who was riveted alive in iron, and was for many years confined in that state by chains twelve inches long to an upright massive bar, in a cell in Bethlehem Hospital.

"I have no personal recollection of the state of asylums at the first period of the present reign, but I have heard from others much that excites the surprise of the present generation when it is told. The asylums were conducted on the worst and cruelest of systems. All government, if such it may be called, was by force and fear. The insane were looked upon as endowed with superhuman strength and craft, as human machines of great power, cunning and viciousness, uncontrolled by reason or any attribute of common sense. It was but therefore, to keep them at all times under restraint, and to make in some cases the form of restraint unchangeable, permanent and irresistable.

The system of pinioning the insane in so decisive a manner as Norris was pinioned, was probably exceptional, but pinioning in a milder manner was the rule rather than the exception. Manacles attached to the limbs and secured by chains to the bunks or beds in which the insane slept were in common use, and what was called the straight waistcoat by which the upper limbs were kept under bandage, was so universal that it remains by name a word of reproach towards the violent until the present hour. 'He ought to be put in a straight waistcoat,' is still a frequent vulgar declaration.

"The centrifugal and the centripetal treatment on a wheel were other methods followed out for the management of the insane up to the latter part of the period preceding the Victorian. It had been ingeniously surmised that the amount of blood supplied to the brain could be increased or lessened by placing a living human body on a horizontal plane attached at a right angle to the axis on a large revolving wheel. If the head of the sufferer were placed on the circumference of the wheels, then it was assumed that the blood in the body would be forced into the brain as the wheel went swiftly round. If on the contrary, the sufferer were placed with the head to the centre and the feet to the circumference, the brain would be emptied of blood as the wheel revolved. One of the medical friends of my early days saw this machine in motion, and made inquiries as to the effect it produced. His record in respect to it was, that if the prayers of the sufferers not to be put upon it, their screams on it, and their giddiness and sickness when they came off it, were to be accepted as signs of improvement, then the treatment might be considered to have been of value; but that he could trace out no instance whatever in which any insane person had been cured by the experiment.

"The Rev. Dr. P., is a very learned man, who, in my first days of practice, was a patient under my care, told me that in a great asylum of which he was at one time a governor, the attendants were detected in the act of dressing the insane under a system of the most astonishing kind, called by them 'the long stocking quietner.' When a patient was to be dressed in the morning, the attendant went to the bed or bunk of the victim, passed round his neck a long, soft stocking, and gently, but firmly, twisted the stocking until the throat was sufficiently compressed to produce a temporary asphyxia and insensibility. Then another attendant came, and while this rough anæsthesia was sustained, dressed the semi-suffocated body for the day. The plan on being exposed, was not without its defenders, who urged that the process gave no pain, that it was attended with no bad results, that it saved hours of possible suffering, and that it was humane, because it did away with all necessity of chastisement, with stripes and struggles, and with injuries to the dressers as well as to the dressed.

"These various modes of government of the insane were not confined to those of the insane who were poor, and, if it be fair to use the term, friendless. The rich were shut up in separate houses, large or small, and were subjected to the caprice which the unwatched powerful, almost of

necessity extend to the unprotected weak. Even royalty itself did not escape. From the moment when the unfortunate George III betrayed his insanity in his speech at the opening of parliament: 'My Lords and gentlemen, and woodcocks cocking up your tails,' he shared with his subjects the servitude of the insane. There are some pictures of him extant, showing him during the period of his insanity, which are simply appalling in the misery they exhibit. They are pictures of fear concentrated and abiding, as well as of a mind weakened and feeble. The story so often repeated, that the king while in confinement at Windsor, was chastised into obedience, was largely credited, and was excused as a necessary part of the treatment of the insane. The exhibition of the king by his keepers for gain was not considered at all a detestable measure, and that he received hard usage is, I fear, but too true. While visiting a large asylum in 1860, the proprietors brought to me a man of advanced life, who had been engaged in his zenith as a younger or assistant keeper of the poor king during the pitiful and painful Windsor period, and this man told us that he himself had seen his majesty knocked down for his obstinacy.

"Such is the background of the picture of insanity and its treatment previous to the present reign. I should rather say it is a portion of the background only, for to fill it up entirely would indeed be a task impossible.

"For some time previous to the Victorian era there had been a few good and humane efforts to relieve the insane of a certain amount of the oppression to which they were subjected. Their names in connection with this effort deserves special mention: Pinel, of the Bicetre, in Paris, the Elder Luke, in the retreat of York, and Dr. Charlesworth, in the city of Lincoln, Lunatic Hospital, in which institution the grand final and triumphant experiment of entire freedom of the insane was carried out." (*The Asclepiad*, 3d Quarter, 1887, pp. 207–209.) Dr. Benjamin Ward Richardson concludes his valuable observations on, "The First Advancement, The Treatment of the Insane," in the following words:

"There is nothing more striking in the course of medical science than the improvement of the insane by the abolition of restraint. It may be considered as a complete conversion, extending throughout all our wide confine. It has planted us first among all nations as physicians of mental disease, and has yielded the best literature on insanity that has ever been produced.

"Strangest fact of all, we have obtained, as an outcome of the system of treatment under the love that casteth out fear, a literature of the insane by the insane, edited, printed I believe, and published by the inmates of the Morningside Asylum in Edinburgh, is one representative of the literature which alone would suffice to illustrate the success of the instalment of practical medicine in the history of the people living under the sceptre of Victoria." (*The Asclepiad*, 3d Quarter, 1887, p. 214.)

TREATMENT OF INSANE IN LOUISIANA.

Much has been accomplished in the alleviation of the condition of the insane of Louisiana, but much remains to be accomplished, and many abuses, such as those which we have described in the preceding pages, remain to be rectified. We will give no fancy sketches, but will present authentic facts as revealed in official reports, which we have obtained after much careful research.

TREATMENT OF THE INSANE IN NEW ORLEANS, LOUISIANA.

New Orleans was founded about one hundred and seventy-one years ago, but what was the fate of the unfortunate insane during the dominion of France and Spain, and during the early occupation of the United States in the early part of the nineteenth century must remain in doubt and obscurity.

After a careful search we find no authentic records of the early French and Spanish Hospital in New Orleans; they appear to have been removed together with other archives to the respective foreign governments. The following facts are of importance in the light which they throw upon the history of the Charity Hospital of New Orleans, and will serve to aid us in ascertaining as far as possible the material available for the preparation of a history of human efforts towards the proper treatment of the insane in this city.

The Charity Hospital, of New Orleans, commenced its career as a private hospital and continued so from 1779 to 1811, when it was given to the city of New Orleans. In 1830 it became a State institution, and has remained so ever since.

From 1830 to 1840 it was supported by a tax derived from licensed gaming-houses, which was ample for the purpose. In 1846 to 1847, the legislature levied a tax of $2.50 a head on all immigrants from foreign countries landing from vessels at the port of New Orleans. This income was large, and continued for several years, but it gradually diminished from $76,000 collected in 1854 to $14,000 in 1859. It was in consequence of the diminished revenue derived from foreign immigrants, that the Charity Hospital became more and more a burden to the State treasury. It is evident from the preceding facts that the city records of the Charity Hospital date from 1811 and the State records from 1830.

It is evident that the Charity Hospital of New Orleans was occasionally charged with the care of the indigent insane, for we find that in 1843 the number of cases, entered upon the hospital records as due to insanity, was forty-eight with five deaths, twenty-three discharges and twenty

remaining. In 1832 mania is credited with twenty-one cases and seven deaths; melancholia, two cases; monomania, three cases. The records of the hospital are not at this time accessible to the writer—between the years 1833 and 1842—but we have reason to believe that the insane of the city received at different times assistance, either directly or indirectly, through the administrators of the Charity Hospital. In such reports as I have been able to examine, between the years 1832 and 1849, the destructive effects of alcoholic stimulants are well marked. Thus in 1832, thirty-two cases of delirium tremens were entered, with thirteen deaths, seventy-nine cases of intemperance with fifteen deaths. In 1842, mania a potu, 122 cases and twenty-nine deaths, inebriety, forty-six cases, three deaths; 1843, mania a potu, 51 cases, five deaths. In 1846, delirium tremens, 159 cases, twenty-five deaths; mania a potu, sixteen cases. In 1848 delirium tremens 177 cases, fifteen deaths; inebriety fifty-two cases, five deaths, mania a potu eight cases, fifty-nine deaths; intemperance, eighty-four cases; mania a potu, ten cases.

After careful examination of the archives of the Charity Hospital of New Orleans, with the kind assistance of Sister Superior Philomena and Sister Agnes, the following facts were established:

1. The wooden building on the right of the main building on Common street was devoted to the treatment of the indigent insane of New Orleans up to the time of their removal to Jackson in 1848.

2. The lower rooms were used as cells for the violent patients. The third story of this wooden building (now known as the female department on Locust street) was occupied as sleeping apartments by the attendants of the insane.

3. The iron bars remained on the windows of this wooden (Locust street) building of the hospital until 1872, when Sister Agnes had them removed.

4. The insane department of the Charity Hospital was in full operation in 1846, and was visited and inspected in this year by Sister Philomena, on her way to Natchez, Mississippi.

5. It is probable that the report of the division for the insane was for a portion of the time, at least, rendered separately from that of the hospital generally.

I have sought information from all available sources amongst those who have resided in New Orleans during a considerable portion of the present century, and was rewarded by the following communication from Judge Charles Gayarré, the venerable and learned historian of Louisiana:

"NEW ORLEANS, May 8, 1889.

"PROF. JOSEPH JONES, M.D., 156 Washington Ave.,

"*My Dear Sir:*—I have understood that before the existence of the insane asylum at Jackson, demented persons, who, before 1848, were not numerous, used to be taken care of at home by their own families, when this could be done. Otherwise, these unfortunate beings were sent to the Charity Hospital, where, if I am not greatly in error, there was a part of the building appropriated for them. I regret to say this is all I know on the subject.

"I gladly avail myself of this opportunity to renew to you the expression of my high esteem and distinguished consideration. Very truly yours,

CHARLES GAYARRÉ."

The preceding statement of Judge Gayarré corresponds to all the facts that I have been able to collect with reference to the disposition of the indigent insane in New Orleans prior to the year 1848.

TREATMENT OF THE INDIGENT INSANE IN NEW ORLEANS, LA.

The Legislature of Louisiana in March, 1847, passed "An Act to Establish an Insane Asylum in the State of Louisiana." The asylum was first thrown open for the reception of patients in December, 1848. Previous to this time a portion of the indigent insane were cared for by the Administrator of the Charity Hospital of New Orleans. Upon their arrest the indigent insane were first incarcerated in a building attached to the Parish Prison consisting of a series of ill-ventilated cells, and this continued to be the custom up to the use of the United States Marine-Hospital building as a city insane asylum.

TEMPORARY ASYLUM FOR THE INDIGENT INSANE OF NEW ORLEANS IN 1856.

Notes furnished by Dr. C. Delére, City Physician, upon the Temporary Insane Asylum in New Orleans.[2]—"When Dr. Delére entered upon his duties, December 1, 1856, the asylum contained fifty-six persons; one of them had been there for a year, others for several months. The insane were huddled together in the cells, and they often fought each other at night, and some came forth in the morning with their heads barbarously bruised with the blows they had received.

"Dr. Delére has addressed some petitions to the Common Council to inform them of the abuses which reigned in the asylum. Upon the entry of his duties a lunatic was compelled to undergo a detention of sixty days before he could be conveyed to Jackson. Upon Dr. Delére's demand the Council, some three or four weeks since, adopted a resolution authorizing the City Physician to demand, whenever he should judge proper, the conveyance to the asylum at Jackson of every lunatic sent to the temporary asylum, without the delay which heretofore they have been compelled to undergo at the said temporary asylum.

"The City Physician complains that lunatics, beggars and persons afflicted with delirium tremens, are all sent, without distinction, to the temporary asylum. He deems it a violation of the laws of humanity thus to confound two classes of persons separated by the abyss of insanity.

[2] New Orleans Med. and Surg. Journal, January, 1858.

"He deems it of the highest importance to expedite as much as possible the conveyance to the Jackson asylum of the insane sent to the temporary asylum, for the hygienic condition of the temporary asylum is entirely unsuitable to the treatment of insanity, whilst the same hygienic conditions at Jackson offer the same advantages; besides, that this last establishment is perfectly prepared for the treatment of this sad affliction.

"The City Physician further thinks that there should be another asylum similar to the one at Jackson, near the city, and for the following reasons:

"1. Since most of the insane are furnished by the city, the proximity of the place will enable the relations to visit them easily and more frequently.

"2. The expense will be much diminished, since the transportation of the insane from the city to Jackson is very expensive.

"3. It will be a source of emulation to the physician at the Jackson asylum, who, instead of being isolated as now and abandoned to his own solitary exertions, will find himself surrounded by *confrères*, with whom he would be enabled to exchange the lights of experience.

"In the present state of things an individual, upon being sent to the *temporary asylum*, is submitted to the examination of the physician of the establishment (the City Physician), who retains him until he has obtained accurate information of his mental condition. He is sent in virtue of an order of a recorder, which order is issued upon the affidavit of any one. If the individual is attacked with delirium tremens only, the doctor retains him and only restores him to liberty when he has perfectly recovered his senses. If he finds that the individual is afflicted with mental alienation, he fills up one of the blanks furnished by the City Attorney, and sends it to the Judge of the First District Court. The Judge then fixes a day for the examination of those designated as insane. The City Physician is summoned, is put upon his oath, and swears that his affidavit (contained in the above mentioned blank form) is true. After this the Judge orders the sheriff to have the insane (who has thus passed through the form of the law) sent to the asylum at Jackson."

Dr. Barkdull, physician of the Insane Asylum at Jackson, wrote in 1857 on this subject:

"The opinion I have formed respecting this prison has not been derived from anybody, or friends of patients, but from a more reliable source than either of these, namely: from the filthy condition in which we receive those who have been confined there any length of time."

156 Washington Ave., New Orleans, La., Aug. 19, 1889.

THE JOURNAL will be sent to any address from now until January 1, 1891, for $5.00.

THE CLINIC.

GYNECOLOGICAL CLINIC.

BY E. E. MONTGOMERY, A.M., M.D.,

PROFESSOR OF GYNECOLOGY IN THE MEDICO-CHIRURGICAL HOSPITAL OF PHILADELPHIA, AND PRESIDENT OF THE SOCIETY OF AMERICAN GYNECOLOGISTS AND OBSTETRICIANS.

[Reported for THE JOURNAL.]

Carcinoma Uteri.—Mrs. G., æt. 35 years, married, mother of four children, eldest æt. 19, youngest 9 years, no miscarriages. Labors were normal. She has enjoyed excellent health, until within the last two years when she first noticed that her menstruation recurred every three weeks, beyond which she experienced no especial discomfort until last March, when she had a continuous bloody discharge. She then consulted a physician, who found a laceration of the cervix covered with exuberant granulations which he several times curetted preparatory to an operation. She improved for a short time when the condition became more severe than ever, menses were very free and continued for eight days. Within the last two months severe pain began to occur, and was quite severe and lancinating. The character of the symptoms from which she complains taken with the physical signs to be described later, leads us irrevocably to the diagnosis of malignant disease.

Malignant disease occurs with greater frequency in the uterus than in any other organ. In the uterus, the cervix is most usually the seat of origin. This greater relative frequency goes far to confirm the assertion that it originates as the result of some previous injury. The cervix is the natural site of injury during the processes of parturition. This is still more evident, when we consider the infrequency of carcinoma in the uterus of the unmarried female. The disease is most likely to occur between the fortieth and fiftieth years of age, but, in my experience, in the wards of the Philadelphia Hospital, I have seen a number of cases in women between 20 and 40. In these younger cases, the disease seems to have an especial virulence, and is much more rapid in its progress. The period of greatest frequency is that near the climacteric. A patient in good health will notice that her menstrual flow becomes excessive; that it is followed by a thin watery discharge, often quite irritating and having an unpleasant odor, or the menses may have ceased for months or years, and there is a slight return of bloody discharge following coition or some unusual exercise, or the discharge may be quite profuse and the woman thinks she is having a return of the menses. The patient may suffer from severe lacinating pain, or this symptom may be entirely absent. I cannot too strongly impress upon you, the importance of excessive menstruation, or hæmorrhage, at or near the menopause.

Permit no patient suffering from this symptom to be in doubt as to the possible gravity of her situation, and insist upon the importance of physical examination to determine its cause. Not unfrequently the anxiety produced by such symptoms are lulled with the assurance that it is indicative of change of life and will cease with the menopause. This is a false security and consumes valuable time. Under such a delusion the opportunity for medical relief escapes, and patient and physician awake to find a fatal termination confronting them. Examination of this patient discloses a large spongy mass filling up the vagina; passing the finger about it, nodules are felt upon the vaginal walls and upon all sides. The uterus is quite large, more or less fixed, and indications of involvement of the broad ligaments. As we look at the patient we see a peculiar anæmic appearance, occurs often as combined result of the hæmorrhage discharge, pain and mental distress.

The cachexia is accepted as an indication of systemic infection. It is doubtless due to the absorption of material from multiple abscesses in the degenerated tissues, as the removal of the latter is often followed by a healthy appearance of the skin. The extent of the disease in this woman precludes the possibility of a radical cure. Where the disease is confined to the uterus, however slight, whether confined to the cervix or the body, the only justifiable operation, in my opinion, is the extirpation of the entire organ. Just as we would remove a whole mammary gland, when one of its lobules was diseased, so would I believe the subsequent immunity against relapse greater in carcinoma uteri when the whole organ has been sacrificed.

This operation, however, is only justifiable, when the disease is confined to the uterus, the presence of vaginal involvement, infiltration of the broad ligaments, nodules in the intra-uterine peritoneum, or tissues, would preclude it for the reason that it is not justifiable to subject our patient to a grave operation that affords no hope of a successful result. But the time for the radical cure having gone by for this patient, is there nothing we can do that will afford her an opportunity for prolonged life, for increased comfort?

The patient is now suffering from hæmorrhage, from the drain of a continuous discharge, and from the absorption of septic material. The relief of these symptoms for a time will improve her condition and prolong her life. This we will endeavor to accomplish by scraping, curetting and cutting away the diseased tissue until firm solid tissue is reached. We place the patient in the semiprone position and insert a Sims' speculum. As I do so, you see this brain-like appearing mass, filling up the vagina. I proceed to scrape this away, using my finger as the safest curette for the reason that I am better able to judge by it the extent of the disease, the amount of involvement of surrounding parts, and avoid the possibility of opening into an adjoining viscus.

Having completed the removal so far as is possible with the finger, and ascertained that we can safely use the curette. I now use this sharp curette which has, as you see, a hole through its handle, and from this fountain syringe we will keep a current of water playing upon the parts as the curetting is done. By so doing the detritus is continually washed away, and we have the influence of heat, or an antiseptic, upon the denuded surface. With the scissors we now cut away the ragged edges, and I show you the uterus with a funnel-shaped cavity excavated nearly to the fundus. There is considerable oozing from this surface, to control this, and prepare the parts for the next step we apply some pledgets of absorbent cotton saturated with liq. ferri persulph. 1 to water 3, making a firm tampon in the vagina. This tampon will be left 24 to 48 hours and removed, the vagina carefully cleansed and protected by sodii carbonas. ℥j, vaseline ℥j, and pledgets squeezed dry from zinci chlor. and aq. āā, ℥j, applied to the raw surfaces. In the application of this agent, it is extremely important to protect well the vaginal surfaces. The sodii bicarbonas. unguent, is an excellent agent for this purpose. It should be spread over the surface of the vagina and about the vulva. The uterus is exposed by the Sims' speculum and the pledgets applied so as to come in contact with the diseased surface; dry cotton is applied over it and then a large pledget wet with a saturated solution sodii bicarbonas. This agent neutralizes the superfluous caustic and prevents the destruction of the vaginal and vulvar tissues. These applications are removed in twenty-four hours and the vagina syringed several times daily. The slough begins to separate about the third day, and is completely thrown off in from a week to ten days. The extent of the slough will depend upon the amount of the organ involved and the excavation of its cavity. The method of treatment is often followed by most excellent results. The general appearance becomes much improved, the face bright and healthy, the hæmorrhage arrested, the discharge ceases, and pain is lessened. The return of the disease in its active form may be delayed by a suitable regimen and the administration of certain remedies. The diet should promote the nutrition and enrich the blood, as beef, mutton, eggs and milk, in other words an albuminous diet. Of remedies, arsenic, mercury and chian turpentine are most highly appreciated. While I have not had the marked results from the use of the turpentine claimed for it by its special advocate Mr. Clayyet, I have seen several cases in which the progress of the disease seemed much less rapid under its use.

MEDICAL PROGRESS.

A COMPARISON OF ANTIPYRETICS.—From a comparison of cases, in which he has carefully tabulated the effects produced, DR. A. CROMBIE, of Calcutta, has reached the following conclusions:

1. As regards efficacy, antipyrin comes first, and there is little to choose between antifebrin and phenacetin.

2. Regarding safety, the advantage lies with phenacetin.

3. As regards rapidity of action, antipyrin, probably on account of its solubility, comes first, antifebrin second, phenacetin third. The fall of temperature after the use of phenacetin is more gradual, and the minimum is not reached for three, four, or even five hours after the administration of the drug.

4. As regards duration of effect, the advantage lies with phenacetin.

5. As regards certainty of action, the order is the same as that of rapidity, *i. e.*, antipyrin, antifebrin, phenacetin.

6. As regards inconveniencies in a hot climate, like that of India, phenacetin is followed by just as profuse sweating as that produced by either antifebrin or antipyrin, and this is the great drawback in the use of antipyretics.

Dr. Crombie believes that there are often cases of fever following chill or exposure to the sun when the exhibition of antipyretics is promptly followed by a cessation of all further febrile symptoms. In remittent and continued fevers antipyretics exert no specific action and are, upon the whole, inferior to the cold pack, although there are often practical difficulties in the way of using the pack which render the administration of antipyretics imperative. Hyperpyrexia in itself is inimical to life both by reason of the structural changes which are induced by it, and the disturbances of digestion which occur when the temperature exceeds 103°. Phenacetin excels the other antipyretics in possessing a soothing soporific effect. In heat, apoplexy, sunstroke and hyperpyrexia generally, antipyrin is indicated; in temperatures of 103° to 105°, antifebrin or phenacetin; in temperatures below 103°, preference should be given to phenacetin.—*Indian Med. Gaz.*, July, 1889.

A CASE OF EXTRAORDINARY ELEVATION OF TEMPERATURE. — DR. LORENTZEN (*Cent. für Klin. Med.*, August 17, 1889) reports the case of a married woman, 20 years of age, where the bodily temperature reached the remarkable height of 112.8°. The patient was under treatment for hæmoptysis, but exhibited no other signs of phthisis. She had numerous attacks of dyspnœa, in some of which she became cyanosed and lost consciousness. The attacks were accompanied by severe pain in the left side on a line with the anterior margin of the axilla, in the fourth intercostal space. There was also a moderate degree of hyperæsthesia in the left ovarian region. There was no cough and no hæmoptysis during the attacks. The attacks themselves generally followed emotional excitement. There were occasional periods of sudden retention of urine, requiring the use of the catheter, but there were no other manifestations of hysteria. On the 9th of January, 1889, when the patient had been under treatment for several months, the reporter found his patient in a feeble condition with eyes closed, face flushed and skin dry, but not very warm. She was slightly delirious and complained of pain in left side and back and of nausea. Dr. Lorentzen measured the temperature in the rectum, allowing the thermometer eight minutes in which to register, when the mercury was found to measure 112.8°. The rectal temperature was again measured, this time with a second thermometer, while the axillary temperature was taken with a third, the results being respectively 112.8° and 112.6°. The pulse at this time was 144, respirations 24. The thermometric measurements were taken with great care and with corrected thermometers. The temperature remained high for several days, after which it dropped to normal. The patient recovered gradually and remains well at date (July, 1889). In default of a more satisfactory explanation the reporter ascribes the elevation of temperature to hysteria.

COMPRESSION OF PULMONARY ARTERY IN THE COURSE OF ACUTE PNEUMONIA.—DR. E. TORDIEU (*Journal de Médecine*, No. 14) records the case of a child, 5 years of age, admitted into hospital for well-marked acute lobar pneumonia of the left upper lobe, who presented a loud systolic murmur in the second left interspace, and traceable toward the axilla. The bruit persisted when the patient was discharged, but so also did the dulness and bronchial breathing at the left apex. The notion of congenital narrowing of the pulmonary artery was unsupported by any collateral evidence, and it was shown that similar bruits have been described which were subsequently proved to have been due to pressure upon the pulmonary artery by enlarged glands or phthisical consolidation. It was therefore surmised that a like causation explained the bruit in this case —a notion which was borne out by the fact that the bruit completely disappeared later, when a soft hæmic apex murmur alone was audible.—*The Lancet.*

ANTISEPTIC PROPERTIES IN HUMAN SALIVA.—From a series of experiments with the saliva of human adults, DR. FLORADIN has found that the sulpho cyanide of potash, which is always present, has decided antiseptic properties.—*Prager med. Wochenschrift*,, Aug. 21, 1889.

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SATURDAY, NOVEMBER 16, 1889.

STATE EXAMINATIONS AND SCHOOLS OF MEDICINE.

There can be little difference of opinion regarding the need for a higher and more uniform criterion of professional attainments than now exists, and few observant men, outside of medical college faculties, will deny the absurdity of allowing possibly incompetent teachers to examine and license the pupils whom they may have faultily or insufficiently instructed. But the search for a practicable method of reform must encounter many difficulties, general or local, inherent in our system of government. In countries where imperial control is exercised over medical education, the prescription of the subjects and sequence of the curriculum, the constant supervision of teaching, and the selection of the fittest to conduct the final examination, are theoretically feasible, and may be made to extend throughout the domain. In America, it is doubtful if national regulations could be legally established, even if there were agreement concerning their desirability, and the chance of improvement must depend on the separate action of geographically continuous, but constitutionally severed States, of whose legislative bodies it is hardly derogatory to say that they are rarely guided by a profound knowledge of the scientific bases of the *ars medendi*, but are usually rather actuated by the hallucination that the sole purpose of the entire faculty of a medical school is to impart to successive classes of unreasoning pupils certain traditional and inflexible dogmata touching the administration of drugs. At the prompting of this curious misconception, charters have been granted to "homœopathic" and "eclectic" medical colleges; in some instances even wilder therapeutic vagaries have been incorporated with collegiate powers; and as an inevitable result, several schemes for State examinations in medicine have been defeated by the clamor of these one-idea "schools" for equal representation in the examining boards. In New York, which has been one of the greatest sinners in the matter of indiscriminate charters—exerting a severe nominal quarantine against physicians from other States or foreign parts, but leaving it open for any of its own irregular chartered schools to countersign the diplomas of Paris, London, Berlin, or Podunk—a recent convention of the homœopathic fraternity naively resolved that the creation of a State board composed chiefly of "allopathic" examiners would probably lead to the obliteration of homœopathic doctrines, and that a fund should be raised to influence legislators against the passage of any Act tending toward such a disastrous end. With "practical politics" as sponsor for the offspring of the morganatic alliance between ignorance and lawmaking, and the "new code" faction officiating as monthly nurse, the rachitic probability of short life does not prevent the cries of the fretful twins from disturbing the peace of the neighborhood; and harassed governors, as well as the perturbed public, may be tempted to administer some "soothing syrup" for the sake of their own quiet. And until the public, including lawmakers and governors, shall have learned that there is as great a difference between a medical school and a "school of practice" as there is between a horse-chestnut and a chestnut horse, and that it is worse than folly to attach the adjective, "homœopathic" or "eclectic," to anatomy, physiology, pathology, and the other sciences which constitute a medical education, the one subsidiary chair of materia medica will continue to absorb exclusive attention, and to present a rock whereon all argument will split.

If this mischief making subject, as usually taught, were abolished from all our schools, the sacrifice would be small in comparison with the advantage gained. We say, "as usually taught," for when we smile at the gibberish of the Hahnemannian "symptomen codex," with its "Acon.,

Ars., Bell., Bry.," and so on to the end of the alphabet, we must remember that in our own ranks there are routinists from whom students learn little or nothing of the toxic or physiological action of drugs, but only the empirical statement that quinine is "good" for paroxysmal fever, or that a combination of rhubarb and soda is appropriate in childhood, with a series of arbitrary prescriptions for the names of different diseases. The miscalled chair of "Practice of Medicine" has been modified by the advance of scientific knowledge, until it means to-day the principles of medicine, and its occupant concerns himself much more with pathology and diagnosis than with medicinal treatment, dealing, as the scientific mind must ever deal, with facts rather than with opinions. If the dry bones of "materia medica"—covered only with the mummified integument of imaginary and antiquated "therapeutics"—were laid at rest in a hermetically sealed sarcophagus, and its place ceded to a living pharmacology, teaching the "how" and "why" of toxic or remedial action, the graduate would be enabled to intelligently adapt his treatment to the pathological indications of the case before him, and the squabbling of sects would soon cease. None save unblushing charlatans would venture to object to an examination which should test the candidate's knowledge of general and special pathology and the demonstrable facts of pharmacology, leaving to his own judgment and conscience the practical correlation of the knowledge so displayed; and no prophetic gift is needed to foresee that the requirement of such knowledge would lead to the extinction of "schools" founded solely for the maintenance of visionary theories.

DREAMS.

We have somewhere seen a story of a young mother who, seeing her baby smiling in its sleep, exclaimed: "The little darling! The cherubs are talking to it." "Oh, no mum," replied the nurse, "'tain't the cherubs—it's the colic!" It is to be feared that the progress of science has tended, for the time, to detract from the poetical feeling with which dreams were regarded when they were supposed to be supernatural warnings, portentous of the fate of individuals and of nations. Still, although we may no longer hope to learn the way to fame and fortune while sleeping off a Christmas dinner, and even the divination of one's future partner for life by dreaming over wedding cake sometimes fails, the mental phenomena of sleep are by no means unworthy of study, not only for their intrinsic interest, but on account of their affinity to the various morbid psychical states.

In the *American Journal of Psychology*, Vol. I, No. 3, MR. JULIUS NELSON gives some of the results of observations made upon himself as a preliminary to the study of the general subject of hallucinations. He says that he possesses the dreamy diathesis in an extraordinary degree, which would certainly seem to be borne out by his statement that he has memoranda of over one thousand dreams per year for the period of more than three years covered by his observations. A prophylactic measure, which he found efficacious against bad dreams in childhood, is curious enough to be quoted: "On composing myself for sleep, the object of a dreaded dream was by voluntary act brought before my mind, and while held there I said mentally, 'Shall I dream of that?' (here visualizing the scene which past dreams had taught me to fear) and then the subject was dismissed with a confidence that I should not be troubled by that dream for that night."

He finds that his dreams may be divided into three distinct classes: The first, which he calls "evening dreams," are only experienced on going to bed in a tired and sleepy condition, without becoming fully awake in the process of undressing. In such circumstances the transition from a semi-conscious state to one of normal repose is marked by a sudden nervous discharge, accompanied by a spasmodic start, which often coincides with the tragic climax of a dream. In the second class, "night dreams," the mind continues to be busied with the ideas and emotions which have engrossed the attention during the day. The third, and by far the most numerous class, "morning dreams," occur after the brain has been refreshed by the night's repose, and "differ from the foregoing classes in the fact that they are new or varied combinations of past mental experience, worked up with great fertility of fancy and multiplicity of transformation."

In compiling his observations he found that the variations in the amount of dreaming on different nights were not altogether irregular, but

presented a certain rhythm, the period of which was twenty-eight days. He also found that sexual excitement, as shown by the frequency of nocturnal emissions, presented a corresponding, though not altogether coincident, periodicity. He is inclined to bring the two facts into relation. A question like this, however, can hardly be decided by observations on a single subject.

HEERWAGEN, in "Philosophische Studien," Vol. V., No. 6, undertakes the investigation of dreaming by the statistical method. He obtained answers to 406 circulars on the following points: Sex, occupation, frequency, vividness and distinctness of recollection of dreams, duration and soundness of sleep, time of day at which intellectual work is most easily performed, nervous troubles, and temperament. Of the persons furnishing the information 264 were men, of whom 151 were students, and 142 were women. The following are his principal conclusions: Women sleep much less soundly than men, and dream much more. Dreams are more frequent in light than in sound sleep. With advancing age, however, while sleep becomes less sound, dreams diminish in frequency. Dreams are more vivid and better remembered in persons who dream frequently. With men, dreaming seems to have no influence on the need of sleep, but women who dream frequently sleep nearly half an hour longer than those who dream seldom. As might be anticipated from the foregoing, those who dream much go to sleep less quickly and are less likely to have unbroken rest than those who dream little. Of the students, 80 per cent. sleep through the night without waking; of the other men, 70 per cent.; of the women, only 43 per cent. Intellectual labor is easier in the morning to those who sleep soundly and dream little. Nervousness is favorable to dreaming, and is more frequent in women. Persons of phlegmatic temperament sleep most soundly and dream least. The author supposes that the reason of the inverse proportion of the frequency of dreams to the soundness of sleep is due to a greater sensitiveness of the brain to internal as to external stimuli.

It is not probable that the subject is by any means exhausted, and the material for further researches is available to almost anyone. It is to be hoped that scientific researches in this field will be less rare in the future than they have been in the past.

EDITORIAL NOTES.

HOME.

LI PO TAI, a Chinese physician, who has resided in San Francisco for thirty years, is said to have a professional income of $6,000 per month.

THE TRANSPORTATION OF DEAD BODIES.—The Association of Baggagemen, which recently met in Detroit, passed resolutions insisting that all bodies of persons dead from contagious diseases, held for transportation, must be properly prepared for shipment by being wrapped in sheets saturated with mercuric chloride and placed in metallic caskets, to prevent the spread of the disease.

THE COUNTRY DOCTOR is the title of a new journalistic venture to be issued January 1, 1890, under the editorial management of Dr. J. T. McColgan, of Arcot, Tenn.

TO OUR READERS.—Through a mistake in our mailing department duplicate copies of THE JOURNAL of November 9 were sent to some of the members and subscribers. We shall esteem it a favor if those receiving said duplicates will return them *at once*, addressed to the Business Department, 68 Wabash Ave., Chicago, Ill. Write on the outside wrapper from whom returned, and the postage (two cents) will be remitted to the sender.

THE MEDICAL MIRROR.—This is the name of a new monthly medical journal to be published in St. Louis, Mo., the first number of which will be issued in January, 1890. It is to be edited by Dr. I. N. Love, who is already so prominently connected with medical journals that he needs no introduction either to the editors or readers of our prominent periodicals. His name in connection with the *Mirror* is an ample guarantee that its reflections will be at once clear and truthful, and that it will shine by inherent rather than by borrowed light. It will not busy itself about "that long felt want," but will create wants for itself, and in its manner of dealing with these its readers will doubtless find abundant satisfaction. We bespeak for the *Mirror* a generous support on the part of the profession, confident that it will be an honor to medical journalism.

DR. JOHN S. BILLINGS, of Washington, D. C., will deliver the Cartwright Lectures this year. The subject will be "Vital and Medical Statistics."

A NEW MEDICAL COLLEGE BUILDING.—Work has been commenced on a new building for the Medical College of the New York Infirmary for Women and Children, at the corner of Livingston place and Fifteenth street.

DR. H. LONGSTREET TAYLOR succeeds Dr. A. B. Thrasher as Editor of the *Cincinnati Medical Journal.*

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION will hold its sixteenth annual meeting in the Congregational Church, LaSalle, Ill., on Tuesday, December 3, commencing at 10:30 A.M. The annual public address will be delivered in the evening by Dr. Henry Ziesing, of Peru, on "Heredity and Adaptability as Factors in Education." This Association embraces several counties and nearly one hundred members. Its meetings of one day and evening only are replete with matters of interest to the general practitioner; its discussions practical and free, and the relations of its members cordial and unreserved. Physicians eligible to membership are invited to unite therewith and contribute papers or clinical reports and present for examination rare and interesting cases of disease or pathological specimens. The Secretary is Dr. Wm. O. Ensign, of Rutland, Ill.

THE HUDSON RIVER STATE HOSPITAL at Poughkeepsie, N. Y., is to be enlarged.

FOREIGN.

SANITARY COUNCIL IN TEHERAN.—The last number of the *Weekly Abstract of Sanitary Reports* issued by the Surgeon-General of the U. S. Marine-Hospital Service, contains the transactions of the Sanitary Council held in Teheran on September 10, and submitted by Dr. W. W. Torrence to E. Spencer Pratt, United States Minister:

It is reported that four Jews, natives of Bagdad, having avoided quarantine, have arrived at Kermansha. They are closely confined and have been forbidden to go about.

Various information received from Khanakin regarding cholera, is reported to have been without foundation and unofficial. Some objection being raised by the European physicians as to the reliability of this report, it was suggested that the Persian consul resident at Khanakin should be the proper informant.

The Turkish physician asked as to state of inhabitants of the country lying between Kerse-ih-Shirun and Khanakin; that they should be led to hope that something definite was being done for their relief; that it is necessary that four physicians be stationed each at Kerse-ih-Shirun and Kermanshah, two to be engaged attending patients with cholera, and the other two to attend those suffering from other disorders, and perhaps one other to be engaged in superintending quarantine regulations.

A question having been asked by a European physician as to the measures being taken to remove bad odors, his excellency the Nasier el Malk, president of the council, replied that full regulations had been instituted formally for the carrying out of all that is necessary in that respect in quarantine.

The physicians said, in reply, that strict regulations were necessary and must be carried out wherever cholera exists; that most particular pains should be taken as regards cleanliness and removal of bad odors, the thorough cleansing of houses and thorough fumigation, and that those dying of cholera should be wrapped in cloths dipped in a proper solution of perchloride of mercury. His excellency, the president, replied that as regards cleanliness and fumigation, such orders have and will continue to be given, but that as regards burial and corpses, nothing could be done contrary to the religion and custom of the country.

According to latest reports from Khanakin cholera has increased, and at Bundakauh and on the other side of the river also; that it is very severe in the tribe of Jof and on the increase, many dying daily; that the people are scattered.

In Khanakin, on the 17th of Moharum, six persons died of cholera, on the 18th five. Apparently the disease is milder, but it is reported that the Gaiam-Migom has forbidden any one reporting the number of deaths.

A MEDICAL SERVICE for the Chinese army and navy is to be established.

A NEW OPHTHALMOLOGICAL SOCIETY has recently been established in Paris under the presidency of M. Chevalereau.

THE RIFORMA MEDICA, the Neapolitan daily medical journal, has received the first prize in the Section of Medical Publications at the Exhibition of Hygiene and Medicine, recently held at Padua, Italy.

TOPICS OF THE WEEK.

ANCIENT SURGERY IN GERMANY.

Ambroise Paré, who became a master barber-surgeon in 1536, and died in 1590, has been called the reformer of surgery, and the French claim in particular that their illustrious countryman was the first to apply the ligature to arteries. PROFESSOR EDMUND ROSE, in an address delivered before the "Freien Vereinigung Berliner Chirurgen" May 13 of this year,[1] laid before the meeting a copy of a work dated 1497, by Jeronymus Brunschwyg, a Strasburg surgeon. On page 19 of this work is a colored woodcut of an operation room, with a description of various instruments then in use—the amputating knife and saw, various probes, needles in handles, small hooks for taking up arteries ("*damit aufzuheben die Adern*"), small and large spatulæ, bent to assist in drawing out the ligature ("*die do Haar uss ziehen*"), etc. Further on the whole *armamentarium* for the extraction of shots or pellets is given. It must be remembered that the arquebuss, the first form of gun fired by a trigger, first came into use about the middle of the fifteenth century. On page 51 are represented six simple trephining instruments.

Professor Rose is troubled because, even in the latest edition of a well-read German surgical work, Paré is still called "the reformer of surgery," whereas his surgery was still "barbaric" when other surgeons had made advances. His oxen with human heads are exactly the same as in Licetus. He was not the first to abandon the old way of treating gunshot wounds (namely, by pouring boiling oil into them), nor did he discover the ligature of arteries, or bring it into general use. Petit, himself a Frenchman, protested against this prevalent idea in the eighteenth century, and at the close of that century Mursinna, in Berlin, commended his way of controlling hæmorrhage after removal of the mammary gland. A plug with a complicated dressing was fastened over each separate artery. Jeronymus Brunschwyg's own words run thus: "*Dass ist, so du siehest ein Ader fast pluten, als an dem Hals die Giessader* (carotid) *oder ein verwundete Pulsader, dass du die Ader herauziehest mit der Nadel und dadurch stichest, und inter Nadeln die Ader verknüpfest mit dem Faden, der do in der Nadeln ist, und dann der Nadeln durchziehest. Und ein Stücklein Fadens an der Ader bleibt hengen, über etlich Tag verfuelet das ober Theil des Adern, und geht der Faden heraus.*" [That is, when you see an artery bleeding fast, such as the carotid in the neck, or a wounded "pulse-artery," you draw out the artery with the needle, and thereby penetrate, and tie the artery behind the needle with the thread which is in the needle, and then draw out the needle, and a small piece of thread is left hanging from the artery. After some days the upper end of the artery mortifies (decomposes), and the thread is detached.] These words are plain enough; the man who used them had evidently ligatured arteries himself.

As regards gunshot wounds, old Jeronymus Brunschwyg acted on the sound principle of extreme cleanliness. He spoke of poisoned arrows, etc., just as we, a few years ago, talked of "infected" wounds without any clear idea of wound diseases. He cleansed the wound with violet or linseed oil (occasionally camphorated), and expressly says "*ein wenig gẽwarmt*" (a little warmed). Thus, he did not advocate the use of boiling oil in such cases. Long afterwards Ambroise Paré omitted the use of this latter means of treating gunshot wounds on one occasion, and tells us that he could not sleep that night from anxiety for his patient's welfare. As to washing with goat's milk, this had already been recommended by Henrich von Pfolsprundt in his *Buch der Bündth-Ertznei*, published in 1460. The above fluids were evidently found to be antiseptic, or rather free from nocuous germs of their own, hence their proved utility on many a battle ground.

The unguentum elemi has been called the balsam of Arcæus. We find the same balsam in Brunschwyg's work. Here it is spoken of as "that best of all balsams for recent wounds that can be had, and its like can hardly be found." And again, "it almost makes flesh grow." But, in another place, he inveighs against the indiscriminate use of that "Strassburg balsam, discovered about the year 1460, and now spread abroad throughout all Germany."

Refracture after faulty union of fractured ends of bones has been attributed to a Swabian surgeon of the name of Bosch, who lived in the middle of the last century. This also is bosh. Brunschwyg did the same thing; he either broke the bone across his knee or laid the limb, enveloped in a cloth, across two supports, and trod on it with his naked foot. Extension was effected gradually by screws; that is, in recent cases—old ones were let alone, on the principle, as we are told, that it is "better to be alive and limp, than to die even with a straight limb."

"Window" bandages were recommended for compound fractures and wounds. A "doltdrank" was given sometimes to overpower a patient with sleep, so that incisions might be made and a fragment of an arrow, etc., removed without pain. The chief ingredient was opium. Ancient surgery in Germany, to judge of this work, had evidently arrived at a high pitch before Ambroise Paré was born.—*Editorial—British Medical Journal.*

[1] Berliner Klin. Wochenschrift, July 1, 1889.

THE HIGH DEATH-RATE IN RUSSIA.

DR. LEINENBERG, of Odessa, publishes in the *Internationale Klinische Rundschau* a lengthy article on the mortality of Russia, which is full of interest for the statistician. He says that in the number of births alone Russia ranks first of all European States, as they annually amount to no less than 48.8 per 1,000 of the population. The latter would consequently grow with abnormal rapidity if an enormous mortality did not make this impossible. This mortality is, according to Janson, 37.3 per 1,000, while the Statistical Central Committee reports it at 36.8 per 1,000. As to the causes of such high figures, Dr. Leinenberg points out that they depend largely on high infantile mortality. He states that 104.8 boys are born to every 100 girls, and that amongst the Jews the proportion of boys born rises to 128.9 for each 100 girls. The mortality of boys, as of the male sex in general, is correspondingly greater than that of the female sex, in the proportion of 36.7 to 35.2. Of 1,000 newly born chil-

dren 263.4 die before they are a year old. This mortality in the first year of infancy is in the province of Novgorod 281 per 1,000, and in the Rusk district of the province of Moscow it reaches the figure of 550.8 per 1,000. Even this enormous number has been surpassed by the town of Irbit, which shows a mortality during the first year of life of 560.2 per 1,000. The provinces of Ekaterinoslaw and Wilno are distinguished by the lowest infantile mortality, the figures mentioned in the report of the Statistical Central Committee being 139.7 per 1,000 for Ekaterinoslaw and 118.9 per 1,000 for Wilno. Comparing the infantile with the general mortality in Russia, the author points to the following two important statistical results: Children up to the fifth year of age form more than one-half of the deaths from all causes. Infantile mortality shows a tendency to increase every year. This great infantile mortality in Russia must be largely attributed to the want of proper diet and of sufficient care, especially amongst the agricultural population. In summer, which is the time when nearly all the children die in the country, the parents are in the fields, leaving their infants at home with no supervision and without sufficient food. This sometimes leads to strange and sad accidents, as in a case mentioned by Giljarowsky, in which pigs devoured the buttocks of a child which had been left alone at home for a considerable period. Griasnoff attended a child which under similar circumstances had been attacked by goats and had lost every finger on both hands. Dr. Leinenberg also goes on to speak of the health of those who have passed the crisis of the fifth year. Of 1,568,315 boys born in the year 1858, only 750,622 were alive in 1879, and when out of this number 272,974 were examined for the purpose of military conscription, 58,824 men—*i. e.* 21.5 per cent.—were found to be suffering from various incurable or chronic diseases, and had consequently to be returned as unfit for military service; so that of all boys born in 1858, 47.8 per cent. reached their twenty-first year, but only 37.6 per cent. preserved good health. —*The Lancet.*

FIFTY YEARS OF COUNTRY PRACTICE.

DR. ALONZO GARCELON, ex-Governor of Maine, is 76 years old, and is still in the active practice of his profession. He this year completes the semi-centennial of his medical career. The Lewiston *Journal* gives us some gossip regarding the doctor's life-work, but particularly about his travels. He estimates that with his horse and chaise he has driven about three hundred and sixty-thousand miles, or fourteen times around the earth. Such an estimate is based on the supposition that he has travelled an average of a little less than twenty miles a day, or seven thousand two hundred miles a year.

This is perhaps, a rather high estimate, but it is quite within the bounds of possibility.

The reflection which occurs to one in contemplating these figures is that an enormous amount of purely mechanical and unproductive labor has to be expended by the country doctor in his daily work. While this time is not by any means all lost, for there is health and mental rest, or, perhaps, productive ratiocination, in a moderate amount of ambulation, yet three thousand miles is too far for the average man to go with horse and carriage, and expect to do the highest class of work in life.

It is all the more credit to Dr. Garcelon that he has succeeded in travelling pretty nearly as far as to the moon and back, and yet has acquired both political distinction and medical prominence. But the country practitioner most needs a means of locomotion swifter than the horse. Dr. Garcelon in riding his three hundred and sixty-thousand miles has had to give up nearly seven solid years, and twenty years of working days out of his total fifty, simply in riding to his patients and home again.—*Medical Record.*

RESPONSIBILITY OF THE DRUNKARD.

M. MOTEL read a paper on this subject before the International Congress of Psychology recently held at Paris. He said that a man was not responsible for a crime committed during the delirious period of drunkenness, nor when the crime was committed by a man suffering from chronic alcoholism, whose brain has undergone those changes which compromise the regular functions of the organ. The responsibility was attenuated in the cases of those persons naturally of a weak intellect and who take drink badly; it is also extenuated when it has been proved that the man got drunk unintentionally. On the contrary to those who got drunk with intention, and where alcohol was taken to give courage in order to commit a crime, no extenuation should be allowed. In conclusion, the author proposed that in presence of the great increase of alcoholism in France, and the terrible crimes committed under its influence, the government be invited to take steps to guarantee society against criminal dipsomaniacs, and for that purpose to establish special asylums for the treatment of habitual drunkards. The assembly adopted this proposition unanimously.—*Medical Press and Circular.*

THE FRENCH SURGICAL CONGRESS.

The fourth French Surgical Congress was opened on October 7, in the grand amphitheatre of the Faculty of Medicine of Paris, under the presidency of M. Larrey, who succeeded M. Verneuil. About one hundred surgeons, members of the Congress, were present. The President delivered a short address, after which the Secretary-general, Dr. Pozzi, read a list of the names of the officers of the Congress. Among the names of the Honorary Presidents occurs that of Sir Thomas Longmore, of Netley. Several papers were subsequently read. On Tuesday the time of the Congress was chiefly occupied by a well-sustained discussion on the immediate and remote results of operations performed for local tuberculous affections. During the sitting on this day, a fire broke out in the great amphitheatre, and the members had to make a speedy exit. The pictures, tapestries, and hangings, as well as the seats and tables, were burned, and the amphitheatre had a narrow escape from destruction. The fire is said to have been due to the overheating of the *calorifère*. Some of the paintings destroyed represented episodes in the history of medical science, and were very valuable. The damage is estimated at 30,000 francs.

PRACTICAL NOTES.

THE EFFECTS OF THE PROLONGED USE OF ARSENIC.

The effects of the continued use of arsenic have been the subject of so much discussion of late in connection with the Maybrick case, and so many statements have been made by those whom we are unable to recognize as able to speak with authority, that the following expression of opinion from Mr. Jonathan Hutchinson, which we take from the second instalment of his *Archives of Surgery*, will be read by all with interest. He writes: "My experience in its medicinal use has been very considerable, and my impressions as regards its effects when long continued are certainly very different from what we have recently seen so freely expressed. I never knew a patient become fond of arsenic, or experience agreeable effects from its long continuance. On the contrary, nothing but anxiety to be rid of a loathsome skin disease will induce the majority of those for whom it is prescribed to continue taking it. Its general effect if pushed is not to give vigor, but to diminish it, and make the patient feel apathetic and uncomfortable."—*British Medical Journal.*

SULPHONAL.

M. Raymond has recently tested, at the St. Antoine Hospital, the value of sulphonal as a narcotic. Though far from being an ideal narcotic, it proved useful in many cases. It had scarcely any action on the respiratory system; on the circulatory system it had the same influence as sleep when this was natural; the temperature was slightly lowered. The secretion of urine was increased, that of the sweat glands diminished. The tongue and mouth were sometimes dry; occasionally, though rarely, the patient vomited. M. Raymond found that sulphonal was not an anæsthetic; it had sometimes a hyperæsthetic action. Small doses had no influence on muscular contractility; doses of 6 grams were followed by ataxic movements of the limbs. Doses of 1 or 2 grams were safe; women were more easily affected by sulphonal than men. Progressively increasing doses were unnecessary. After a certain time it could be discontinued; sulphonal was superior to morphine in this respect. It was especially useful in insomnia resulting from general debility, neurasthenia and cerebral disturbance; where there was actual cerebral lesion the action of sulphonal was more intense, and in such cases it had to be administered with great care. Sleeplessness from abuse of morphine was relieved by sulphonal; it was also useful in phthisical patients who were rendered sleepless by coughing. It was inert when sleeplessness resulted from rheumatic pains, sciatica, cardiac troubles, also in Bright's disease and intense dyspnœa. Sleep produced by sulphonal was calm, lasted from six to eight hours, and came on about half an hour or one hour after administration. The disadvantages attending the use of sulphonal were fatigue, giddiness, and sometimes positive vertigo.—Paris Correspondence *British Medical Journal.*

THE COCAINE HABIT.

Dr. E. Fletcher Ingals writes us a note regarding the cocaine habit as follows:

I have just read the article in the *Journal* by Dr. Morgan, on Cocainism, and although much interested in the report of the case, I feel confident that the doctor's conclusion, viz.: "In the treatment, the drug should be immediately and totally discontinued," and his further conclusion that the habit is harder to conquer than any other, are radically wrong.

I have had much experience with cocaine, and have had two cases in which the habit ruined the individual, but in either of these cases, I believe, it would have been an easy matter to withdraw the drug gradually and finally entirely, if they could have been properly cared for. In both of them the drug was gradually reduced without their knowledge, until at last 75 per cent. had been cut off, and this without hardly exciting the suspicion of the patient. If at that point they could have been taken in charge by some authorized friend, the habit could have been easily stopped without distress to the patient. These cases came from my early use of the drug, when I gave the patients a prescription for it, and cautioned them not to use too much. I have learned that it is never safe to prescribe cocaine, for although the habit may under proper conditions, I think, be easily broken, it is more easily formed than the opium, alcoholic or chloroform habit.—*Indiana Medical Journal.*

IS PHENACETIN A REMEDY IN WHOOPING COUGH?

Dr. R. Heimann, of Laudau, answers the above question affirmatively, having used the drug experimentally in a case in which antipyrin entirely failed. The success was so surprising that he administered the drug in two other cases. It reduced the number of paroxysms, which had been from ten to fifteen per diem, to three, and on some days they entirely ceased, only reappearing at night, when no phenacetin was given. Dr. Heimann gave a boy of 3 years 6 grains in four doses of 1½ grains, a girl of 2 years 5 grains in three doses, and an infant of 7 months 3 grains in four doses, without observing the slightest ill effects. One grain and a half of phenacetin would, on the average, retain its effect for three hours. The author recommends further trials of the drug.—*Lancet.*

SOCIETY PROCEEDINGS.

Tri-State Medical Association.

First Annual Meeting, held at Chattanooga, Tenn., October 15 and 16, 1889.

In pursuance to a call issued by several Societies of Alabama, Tennessee and Georgia, delegates from these States met in Chattanooga and effected the permanent organization of what promises to be an excellent Association.

FIRST DAY.

The professional part of the proceedings began with *Microscopical Demonstrations* by Dr. Jas. E. Reeves.

DR. W. L. GAHAGAN read a paper on *The Physiology of the Heart and its Valves.*

The paper contained an accurate description of the muscular anatomy, the innervation, the action and the sounds, normal and pathological, of the heart.

DR. DRAKE said that the question "What makes the heart beat?" had not yet been satisfactorily answered, and called attention to the importance of recognizing the differences in the nervous mechanism of the lower and higher orders of animals.

DR. JAMES E. REEVES read a paper entitled *The Importance of the Microscope in the Practice of Medicine.*

Remarks on the paper were made by Drs. W. C. Townes, G. A. Baxter and J. B. Cowan, who all emphasized the importance of microscopical investigations at the bedside. The paper was carefully written and the subject handled in so masterly a manner as to be above criticism.

DR. J. E. PURDON, of Cullman, Ala., reported

A CASE OF FRACTURE OF THE SKULL IN AN OLD MAN—RECOVERY.

The man was 65 years old, and the interest in the case lay in the fact of recovery at that age from such an extensive fracture. The opening, after the removal of bone, was 3 inches or more. The fracture was over the third convolution. The loss of memory of names was a marked symptom from which the patient had only partially recovered.

The discussion, participated in by Drs. G. A. Baxter, E. T. Camp, W. L. Gahagan, James E. Reeves, J. F. Lynch, J. B. Cowan, P. B. Green, W. B. Wells, Jas. Grange and Frank Trester Smith, was largely on the location of different centres of the brain and the effect and symptomatology when injured, and the use of the trephine.

DR. BAXTER related a case in which there was an anomalous distribution of the anterior branch of the middle meningeal artery, which was wounded while trephining for compression caused by a blood clot. The hæmorrhage was controlled by pressure, the plug of bone having been inserted in the opening. Later the blood clot broke down and was discharged. There was good union of the plug of bone and full recovery.

DR. ANDREW BOYD, of Scottsboro, Ala., read a paper on

CROUPOUS PNEUMONIA,

in which he briefly reviewed and discussed the etiology at length, holding the view that the disease is due to a specific germ, citing cases to prove his position. He thinks the diagnosis can only be made from physical signs, and that the rusty sputum and herpes labialis are pathognomonic. The disease runs a definite course from seven to fourteen days. He mentions four varieties of treatment: depletory, sedative, stimulating and mercurial; and reasoning from analogy he concludes that the best plan is to keep down the fever and stimulate the heart.

The paper was discussed by Drs. G. W. Drake, Jas. E. Reeves, P. D. Sims, E. T. Camp, J. E. Purdon, C. N. Cooper and J. B. Cowan.

DR. DRAKE called attention to the importance of keeping in mind the difference between fibroid phthisis as sequelæ and croupous pneumonia.

DR. MAX THORNER, of Cincinnati, presented a paper entitled

IMAGINARY FOREIGN BODIES IN THE THROAT.

These were divided into three classes: 1. Cases where something had been removed from the throat but the sensation of a foreign body remained; 2. Cases where the sensation was due to some pathological lesion of the throat; 3. Cases where neither of the above causes exist but where the sensation is either reflex or produced by some remote ailment; as, for instance, indigestion, or where the trouble is purely neurotic. The treatment varies. Some can be persuaded that there is no foreign body there, in some it is necessary to resort to innocent deception. The author cited a case. Pathological conditions, as enlarged tonsils or uvula, varicose veins on the back of the tongue, hypertrophied papillæ or lymphoid nodules on the tongue, should be removed. Intercurrent affections should be treated. Cases of a purely neurotic character are rarely permanently relieved.

The paper was discussed by Drs. N. C. Steele, Frank Trester Smith and N. C. Cooper.

DR. SMITH related a case where deception had been unsuccessfully tried, and called attention to the importance of a careful examination for pathological conditions that might account for the sensations, especially local swellings.

SECOND DAY.

DR. J. A. LONG, of Long's Mills, Tenn., read a paper on

TYPHOID FEVER.

The doctor said that the invasion was insidious

during the initial stage; tongue white, smooth and glossy, tip and edges red, trembling when protruded, subsequently many changes, speckled appearance; the pulse dicrotous, in the beginning weak, and this is characteristic of typhoid fever. Headache comes on during the second week and lasts ten days. Rose-colored eruption invariably present; muttering delirium in all forms and cases of the disease. Both infectious and contagious; may be a mixed fever, as he saw in Polk Co., Tenn., without tympanitis but the pulse had a reacting beat. The causes of the disease, filth about old barns and out-houses; diagnosis so easy that there is no disease likely to be mistaken for it when symptoms are well marked, yet there are some cases which do not have well marked typhoid symptoms. There is little doubt that the first cases in a family arise from the influence of infection, and in the later ones the infection acts as a predisposing cause to the contagion of the first cases. He has no faith in the germ theory. It is the fever that kills. The report covers 505 cases with a death-rate of less than 2 per cent. His main reliance in treatment is to combat ulceration of the glands of the small intestines, which is one of the earliest symptoms, by giving turpentine in 1 drop doses every hour. Whether it acts as a diffusible stimulant to slow ulceration, or as a disinfectant, he does not pretend to say.

The paper was discussed by Drs. G. W. Drake, J. E. Purdon, L. P. Barber, W. L. Gahagan, Chas. N. Cooper, R. D. Boyd, Jas. E. Reeves, H. E. McReynolds, C. Holtzclav, J. F. Lynch, J. B. Cowan and Frank Trester Smith, who presented a specimen of ulceration of the intestine.

DR. REEVES said: The paper just read, notwithstanding the long experience and high professional standing of the essayist, is defective in many particulars. As a clinical picture of typhoid or enteric fever it is so faulty, so unnatural, that those familiar with the original would scarcely recognize the specific picture, and I can only account for the warm commendation it has received on the ground that it is not easy to follow the reading of a paper on any subject with such correct understanding of its value as to enable the hearer to discuss it fairly and critically. My excuse for the criticism I shall offer is that for forty years I have been a student of enteric or typhoid fever, and by such training I am able, I think, to compare the picture just presented with one which I myself long ago gave to the profession,[1] and which to-day I could not improve, notwithstanding the greater clinical experience gained in the last twenty-five years.

I do not know a typhoid fever in which the "headache comes on in the second week, a dicrotous pulse during the initial stage without cough and bronchial râles; muttering delirium in all cases, where cause of the disease is filth about old barns and out-houses, where "*the first cases in a large family arise from the influence of infection, and in the later ones the infection acts as a predisposing cause to the contagion of the first cases*," and where "ulceration of the glands of the small intestine is one of the earliest symptoms." This is wonderful! He has so far modified the turpentine plan of treatment given by the never to be forgotten master in the theory and practice of medicine, the late Prof. Geo. B. Wood, that he recommends but 1 drop of turpentine every hour "to prevent the ulcers from getting headway." He relies upon this dose of turpentine as a diffusive stimulant, to slow ulcerations or to disinfect microbes! He contradicts himself in some of his statements, *e.g.*, after saying "the diagnosis is plain and easy when the history, symptoms, etc., are studied," he declares "some cases have no well marked typhoid symptoms." Finally, he boasts that his fatal cases have not exceeded 2 *per cent.!* and this is the answer that he himself makes to the question that naturally suggests itself—Were his cases all genuine cases of typhoid fever? I am sorry to have felt myself compelled to make these remarks, but the demands of medical truth are inexorable, and I must beg that my criticisms go on record with the paper.

DR. DRAKE said that the paper contains the most complete pen picture of the disease which had ever been presented to his mind, and barring some confusion in regard to infection and etiology, merited high commendation. Much interest attaches to the paper as being the result of the observation of over 500 cases in a practice of forty-five years in the same locality. Dr. L. gave his own observations of his cases without reference to text-books or the experience of others. Turpentine, quinine, alcohol, milk and home-made beef-tea are the medicines and foods Dr. Drake had used in his practice.

DR. W. C. TOWNES, of Chattanooga, read a paper on

HYPNOTISM AND SUGGESTIBILITY.

Dr. Townes had recently studied the subject of hypnotism in Paris, and claimed that it was a means that had too long been relegated to charlatans. In support of his claim that it should be recognized he cited several cases where patients had been cured by this mysterious agency. He showed that the phenomena of moving tables, etc., are real, that certain of our actions are made unconsciously, dependent upon complicated brain action and also on double personality. Hypnotism is a peculiar psychical state which we are able to create in the subject and which increases his suggestibility. From a medical standpoint the aim is to produce this state, so that suggestion will excite the nervous system to perform acts

[1] "A Practical Treatise on Enteric Fever, its Diagnosis and Treatment; being an analysis of 135 consecutive cases derived from private practice and embracing a partial History of the Disease in Virginia." Philadelphia: J. B. Lippincott & Co. Pp. 200. 1859.

that will lead toward a cure. Homœopathy, miraculous waters, granules and Brown-Séquard's elixir of life act by suggestion, often resulting in a cure. The author closed by citing the conclusions adopted by the recent Congress in Paris: that hypnotism should be taught in medical schools, but should be under authoritative administration.

DR. J. E. PURDON, of Cullman, Ala., read a paper entitled

THE SPHYGMOGRAPH AS A NEW REAGENT IN PSYCHICAL RESEARCH.

Dr. Purdon's paper had for its object the advancement of a claim to the discovery of the fact that psychical influence of one nervous system upon another at a distance, and unconnected by any of the ordinary physiological bonds, could be demonstrated by the aid of the sphygmograph. He claimed to have identified in many instances forced relationships of the pulse tracings from the fact that certain neurotic subjects had departed from their usual trace forms to conform to those of individuals with a more dominant nervous system. Dr. Purdon further argued that this was a first step towards the proof of physical connection between the higher centres of different brains which the progress of modern psychology obliges us to acknowledge, in the face of the now well established fact of psychical community, mind reading, sympathetic sensibility, etc. He argued against the fundamental principles of materialism by falling back upon the possibilities of the infra-conscious intelligence and by regarding mind and matter as but different aspects of the one underlying reality.

These two papers were discussed by Drs. G. W. Drake, James E. Reeves, J. B. Cowan and G. A. Baxter.

DR. DRAKE said: We have heretofore been taught that nerve impulses are confined to the individual in whose organism are contained the cerebro-spinal and ganglionic nervous systems. In Dr. Purdon's paper the startling thought is presented that nerve impulses (or nerve fluid) may escape from the body of one individual and, like electricity, passing through the intervening media, atmosphere or even a stone wall, penetrate the body of another individual. When impulses from the cardiac centres of one person may pass to those of another, or to the nerves leading from them, and so control the pulse as to cause the sphygmographic tracings of the individuals to be essentially identical; when impulses—a current of fluid—as instanced in the cases of the prisoners cited in Dr. Purdon's paper, passed through prison walls and affected individuals in separate cells; this fluid must be more subtle than electricity, since the latter might have shattered the walls, while there was no trace left in the walls by the passage of the nerve influence, but the doctor shows traces of the sphygmograph claimed by him to have been caused by impulses which passed through the walls. There were peculiar noises in the room when Dr. Purdon made these observations on the three prisoners, like rappings on tables, noises produced by the passage of this subtle fluid (nerve impulse) through non-conducting media which would be encountered here and there in the atmosphere of the room; little thunders, as it were, analogous to the thunder of lightning. Dr. Purdon appears to teach that currents of thought may pass from one brain to another, as in mind reading, and currents of painful impulses from a parturient woman to a sympathetic spectator, and during pregnancy the husband may suffer, by transference, the nausea which belongs to the wife. If Dr. Purdon's theories be true, how may we know that our thoughts are our own and not currents of impulses from the brains of others? This is a legitimate inference from his theories.

As to hypnotism and suggestibility presented by Dr. Townes; the brain centres are kept awake and active by impulses which flow in through the five senses, and also by thoughts or ideas from the mind—a separate existence from matter—impulses may be conducted by nerves to any or all of the brain centres, or subconscious impulses may originate in these centres. Now, then, if these centres, either by impairment of the centres so as not to receive impulses or impairment of the nerves so as not to conduct them, or the shutting off of the stimuli so as not to act on the peripheral terminations of the nerves, the centres thus treated are in a hypnotic state, while other centres may be awake and active. There may be thus localized hypnotism. To become an expert in the practice of hypnotism it is necessary to study the methods of temporarily suspending or retarding the action of the brain centres. If you have to control a normal action in the subject, by the same means you may be enabled to modify an abnormal action which is producing some functional disturbance. The quieting of the fretful babe by the mother's gentle patting and sweet lullaby is due to hypnotism, and later the aches and pains are cured by the mother's kisses—suggestion. The method by suggestion is a species of faith cure and depends in a great measure on the credence of the patient in the promises of the physician. Suggestibility, as I understand it, is a susceptibility to certain psychical influences, and may be increased by the hypnotic state. Hypnotism and suggestibility are old ideas clothed in the habiliments of science. Let us beware how we handle the tool of the charlatan lest we give our endorsement to methods we strenuously condemned in the near past. Psychology is destined to work great revolutions in medicine, but let us take our soundings often as we near shoal waters.

(To be concluded.)

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

New York County Medical Association — The late Professor Alexander B. Mott—A Double Fœtus—Podalic Version in Contracted Pelvis.

At the last meeting of the New York County Medical Association Dr. John Shrady read a memoir of the late Professor Alexander B. Mott, which was listened to with much interest, and at its conclusion the following minute was adopted:

In the death of Alexander B. Mott the well-maintained heritage of a name illustrious in the annals of surgery is transmitted to posterity with added memories of good work faithfully done.

Self-reliant, ingenious in device, and exceptionally skilful in execution, his career exemplified the best attainment of his chosen art, and his departure leaves a vacancy long to be deplored.

Sharing the grief of the whole profession which he adorned, this Association desires to record its special regret for the loss of a valued member, and its sympathy with those who mourn not alone for the distinguished surgeon, but for the beloved relative or dear friend.

Dr. Augustin M. Fernandez then presented a specimen of double fœtus united at the thorax and upper part of the abdomen, relating the circumstances of its birth, which was attended by himself in September, and giving an admirable *résumé* of the existing knowledge in regard to such monsters and their delivery. The mother, a Cuban lady who was stopping temporarily in New York on her way to the Paris Exposition, was past the sixth month of pregnancy, and when Dr. Fernandez made his first examination he was surprised to find three feet protruding from the os uteri. A physician from the house-staff of the New York Hospital, which was near by, was hastily summoned in consultation, but there was no special trouble in the delivery, though the monster was born dead. One of the children measured 14 inches in length and the other 13½ inches; weight 4¾ pounds. They were both males and well developed, and their faces were turned toward each other. The placenta was delivered twenty-five minutes after their birth, and there was but a single umbilical cord. The uterus contracted well and the mother made an excellent recovery.

This double fœtus belonged to the order of symmetrical navel-joined monsters (Fisher), in which the band of union varies from a comparatively narrow band, as in the case of the noted Siamese twins, to complete union of the thorax and a considerable portion of the abdomen. In this instance it involved the sternum throughout and all the upper part of the abdomen, there being but a single liver, which was of large size. Dr. Fernandez, in studying the literature of the subject since he met with this case, has found, like Playfair, that the authors who have placed on record the birth of double monsters have generally occupied themselves more with a description of the structural peculiarities of the fœtuses than with the mechanism of their delivery, so that, although the cases to be met with in medical literature are very numerous, comparatively few of them are of real value from an obstetric point of view. For obstetric purposes Playfair confines his attention to four principal varieties of double monstrosity, which are as follows: 1. Two nearly separate bodies united in front, in a varying extent, by thorax or abdomen (as in the present instance). 2. Two nearly separate bodies united back to back by the sacrum and lower part or the spinal column (as in the case of the "double-headed nightingale," Millie Christine). 3. Dicephalous monsters, the bodies being single below, but the heads separate. 4. The bodies separate below, but the heads fixed and partially united.

The principal paper of the evening was by Dr. George Tucker Harrison, Vice-President of the Association, on "Podalic Version in Contracted Pelvis," and embodying, as it did, the results of careful and accurate observation by an accoucheur of high reputation and widely extended experience, it constituted a contribution of real worth and great practical interest.

Dr. Harrison commenced with a reference to the very vague and indefinite views of the average practitioner as to when forceps, version, craniotomy, Cæsarian section, or the induction of premature labor are indicated in cases of narrow pelvis, and said that this was scarcely to be wondered at, considering the divergence of opinion existing among distinguished authors and teachers regarding the therapeutical doctrines of this condition. From several passages in the writings of the ancient Celsus he thought it was evident that that celebrated author had a knowledge of podalic version, and a passage from Philumenos showed that in head presentations, when these obstacles to the birth occurred, it was practiced by the Roman physicians. With the destruction of the Roman empire its literary and scientific knowledge disappeared, and it was therefore, he said, an inestimable boon that Ambroise Paré conferred on humanity when he rescued this method from oblivion and recommended its use as a conservative measure in dystocia from pelvic contraction.

Having paid a tribute to the zealous and successful labors of de la Motte on behalf of podalic version, he proceeded to speak of those of Sir James Y. Simpson, and designated as epoch-making his writings on this theme. At a meeting of the Obstetrical Society of Edinburgh, held in January, 1887, this distinguished authority had the opportunity of showing to the members a large infant extracted the previous evening by

the operation of turning through a pelvis the brim of which was greatly contracted. Although the child was born dead, the fact that the head had passed the contracted brim undiminished gave him an incitement to further investigations. In writing of this case afterward he said that it was, at the time of its occurrence, one of intense interest to him in two points of view: First, it was the first case in which he or any other accoucheur had ever tried the effects of ether inhalation during labor; second, the case appeared to him to be one of great moment as an opposite illustration of views which he had been previously led to entertain as to the possibility and propriety of substituting, in some instances, extraction by the feet for extraction by the crochet; the delivery of the infant by the hand of the accoucheur, instead of its delivery by instruments; the lateral compression of the child's head by the contracted sides of the pelvis, instead of its more dangerous oblique or longitudinal compression by the long forceps; and, above all, the transient and not necessarily fatal depression of the flexible skull of the fœtus for the destruction and necessarily fatal perforation of it.

Simpson thus summed up and recapitulated the advantages obtained by podalic version in contracted states of the pelvic brim:

1. The fœtal cranium is of a conical form, enlarging from below upwards, and when the child passes as a footling presentation the lower and narrow part of the cone-shaped head is generally quite small enough to enter and engage in the contracted pelvic brim.

2. The hold which we have of the protruded body of the child, after its extremities and trunk are born, gives us the power of employing so much extractive force and traction at the engaged fœtal head as to make the elastic sides of the upper and broader portion of the cone (viz: the biparietal diameter of the cranium) become compressed and, if necessary, indented, between the opposite parts of the contracted pelvic brim, to such a degree as to allow the transit of the entire volume of the head.

3. The head, in being dragged downwards into the distorted pelvis, generally arranges itself, or may be artificially adjusted so that its narrow bitemporal instead of its bi-parietal diameter becomes engaged in the most contracted diameter of the pelvic brim.

4. The arch of the cranium or head is more readily compressed to the flattened form and size required for its passage through a contracted brim by having the compressing power applied, as in footling presentations and extraction, directly to its sides or lateral surfaces, than by having it applied, as in cephalic presentations, partly to the lateral and partly to the upper surfaces of the arch.

Lastly I may add, as a result of the whole mechanism, that the *duration* of the efforts and sufferings of the mother is greatly abridged by turning, when used as an alternative for craniotomy and the long forceps, and that thereby her chances of recovery and safety are increased.

Simpson's teachings, Dr. Harrison went on to say, met with a hearty reception in Germany, and it was especially through the brilliant and enthusiastic advocacy of these doctrines by Schrœder and Gusserow that they received general recognition on the part of the German obstetricians. In England such high authorities as Barnes, Braxton Hicks, Leishman and Duncan had employed version to a greater or less extent, while others equally well known gave the preference to the high forceps operation. In France version had never been a favorite procedure, and especially since the introduction of the Tarnier forceps had it lost ground. In this country version has found comparatively few advocates, except within restricted limits. For the value of their contributions the names of Taylor, Goodell and Lusk were worthy of special mention, and the latter, in his excellent text-book, had discussed the subject in a spirit of judicial fairness.

Dr. Harrison criticized with much vigor the article by Dr. Cameron on "Forceps vs. Version" in the American system of obstetrics, from which he quoted the following passage: "Except in cases of considerable pelvic contraction the forceps operation may be regarded as comparatively harmless in skilled hands, while internal version is always a serious undertaking, involving more or less danger for mother and child, even when performed with the greatest skill. The unpracticed operator is far less likely to do harm with the forceps than with version. Whenever, then, it comes to be a question of choosing between forceps and internal version, the forceps should be selected, unless specially contra-indicated, because the operation will be easier and at the same time safer for the mother and child." More false doctrine, Dr. Harrison thought, could hardly be embraced within the same number of sentences. Shrœder had shown in the clearest manner that this putting in contrast forceps and version is an error, and ignores true obstetric relations. When version was still practicable, the forceps was contra-indicated; and when, on the other hand, the forceps was indicated, the time for turning had already passed. The objections to the use of the forceps in high-standing head were mainly twofold. In the first place the forceps grasps the head in the fronto-occipital diameter, so that the tendency is to enlarge the transverse diameters, which have to pass the conjugata, and at the same time to prevent the over-riding of one parietal bone upon the other. In the second place it is not in the power of the forceps to accomplish the inflection of the bones, which is an important factor in the moulding of the head.

The advocates of podalic version in contracted pelvis, he said, were divided into two parties, according as they respectively formulated the therapeutical indications. The one side recommended waiting, so long as the passage of the child's head appears possible and devoid of danger; when further delay is no longer permissible in the interests of the mother, perforation and extraction with the cranioclast in high-standing head; forceps in the case of a living child, after the narrow part has been surmounted; in unfavorable engagement at the brim, fixation not ensuing within a certain period, version and extraction. The other side sought to avoid the possibility of a perforation by a prophylactic version before any symptom of danger threatened the mother. Dr. Harrison said that for years his own practice had been based upon this view, and that he could not earnestly advocate the advantages of this method of procedure. Long ago Simpson had argued that the protraction of labor was, *per se*, dangerous both to mother and child, and that any operation was dangerous and fatal in proportion to the length of time allowed to elapse before the artificial delivery was accomplished. For these reasons he declared that in proportion as turning was practiced earlier, so far would it be attended by greater safety and greater success.

The conditions most favorable for version were, of course, intact bag of membranes and completely dilated os uteri. Often, however, the physician was not called to the case until the membranes had already ruptured, and this might have occurred prematurely. This premature rupture was especially to be regretted in a contracted pelvis, as it rendered the prognosis for mother and child more unfavorable, the explanation being that such an accident is more apt to occur at an early stage of the labor in a narrow pelvis. He fully agreed, therefore, with Nagel in the opinion that in a premature rupture of the membranes version should be undertaken as early as possible, and that we should not wait for full dilatation. It was of the utmost importance, as influencing the result, that the after-coming head should be brought through the pelvis with as little delay as possible, and upon the best method of accomplishing this the views of different authors were at variance. All were agreed, however, that the head must be guided into the pelvis and drawn through it with the chin flexed. The finger in the mouth served mainly to approximate the chin to the breast. A supremely important matter was the pressure from without through the abdominal coverings, traction on the trunk being made by the hand over the nape, according to the Veit method. Dr. Harrison's experience has been entirely in accord with that of Nagel, who suggests the propriety of rotating the chin behind, when still in the inlet of the pelvis, so that the sagittal suture runs in one or the other oblique diameter. In this way, he said, he had repeatedly accomplished delivery in exceedingly contracted pelves.

In the discussion of the paper Dr. Charles A. Leale described the method he pursued in inducing premature labor and delivering by version in anus where the pelvis was contracted to such an extent that it was not deemed expedient to allow the woman to go to full term; and Dr. Joseph Kercher spoke particularly of the difficulty in correctly estimating the pelvic diameters, stating that he had known good obstetricians to resort to the early use of version or the forceps in cases where the pelvis was in reality of normal size, under the impression that there was present a considerable degree of contraction. In his opinion podalic version was not to be recommended, as a rule, in primaparæ, except the os were well dilated and the membranes unruptured; breech labors being much more dangerous to the latter than to multiparæ.

In closing the discussion Dr. Harrison spoke in deprecation of the emphasis which most of the text-books on obstetrics laid upon the rarity of contracted pelvis in this country as compared with European nations. It was, no doubt, true, he said, that this condition was somewhat less common here than in Europe, but at the same time it was met with with sufficient frequency to make it necessary that every practitioner of midwifery should be fully prepared to treat such cases in the most skilful manner. Personally he had had some terrible experiences with them in this city, and as every one was liable to come across them in his practice, he thought it was a great mistake that the student and young physician should be allowed to get the idea that they were so rare that he need regard the chance of his encountering one as only a remote contingency.

At this meeting, which was the first the Association has held since the long vacation, twenty-nine new members were elected, and a committee was appointed to consider and report upon the best methods of suppressing illegal practitioners and mitigating dispensary abuses in the city of New York.

P. B. P.

Chloroform Accidents.

To the Editor:—I take the liberty of writing you in regard to the article on "Chloroform Accidents" in THE JOURNAL of October 19th.

I have been for many years following the practice there described for prevention of death under anæsthetics, and have over and over again presented it to the profession of this country. First in the *American Journal of Medical Sciences*, April, 1876, on "The Influence of the Injection of Narcotics upon the Anæsthetic Process;" again in "Transactions of the State Medical Society of

Ohio," 1879, in which paper I particularly urged the influence of atropia in sustaining the heart's action; further, in American edition "Holmes' Surgery," and several times in journals.

Now, I do not wish to trouble you, and care little about the *personal* honor of priority in this matter, but think that when a procedure is published as a *good thing*, being so discovered *abroad*, those who have worked at it for many years before *in this country* deserve mention.

In speaking of *priority* of this process, I do not claim *originality*, but only that I have been a persistent and repeated advocate of it. I believe it to be one of the most important and most valuable modifications of the anæsthetic process. Nussbaum first used it. When in Münich, in 1887, I took the trouble to call upon him in reference to it, but found that he never carried it beyond his first essay.

The method was placed upon a scientific basis by Bernard ("*Lecons sur l'Asphyxie et l'Anæsthetic*"), and the results as to death of dogs there given is quite as striking as that in the article you have published.

I am very respectfully and truly yours,

J. C. REEVE, M.D.,

Dayton, O., October 19, 1889.

Tenth International Medical Congress.

To the Editor:—I have received the following letter from Professor Virchow, the President-elect of the next Medical Congress.

Very truly yours,

JOHN B. HAMILTON.

Treasury Department, U. S. Marine-Hospital Bureau, Washington, D. C., October 30, 1889.

BERLIN, October 1, 1889.

Dear Sir:—The Organizing Committee of the Tenth International Medical Congress is now constituted. I myself am elected President, and Dr. Lassar (Karlstrasse 19, N.W.) Secretary-General. We will be very happy to receive the Transactions of the Ninth International Congress, and we hope to see you and many of your countrymen at the new session.

I am, sir, very sincerely your obedient servant,

PROFESSOR RUD. VIRCHOW.

Holland Claims the Microscope.

To the Editor:—Allow me to call your attention to an error in THE JOURNAL of September 14th, which mistake I have recently seen in one or more other journals. On page 385 of THE JOURNAL, under the caption of "The Tercentennial of the Microscope," you ascribe the invention of that highly useful instrument to a Zacharias Janssen, of Magdeburg, the capital of a Prussian province, Saxony. Zacharias Janssen, to whom belongs the credit of constructing the first *compound* microscope (the simple microscope was known previous to that time), was not a German but a *Hollander*, born and reared in *Middelburg*, the capital of the province of Zeeland, one of the eleven provinces of the United Netherlands.

Germany and the Germans seem particularly anxious to monopolize the credit of most of the *useful* inventions—now they lay claim to the invention of the microscope. "Honor to whom honor is due." J. VANDERLAAN, M.D.

Muskegon, Mich., September 14, 1889.

NECROLOGY.

Dr. Isaac E. Taylor.

This distinguished physician, so well known to the medical profession and so highly honored, died at his residence in West Thirty-fifth street, New York City, on the 30th ult., at the age of 77 years. He was from the time of its organization until his death the first and only President of Bellevue Hospital Medical College, and has always been esteemed as one of the foremost promoters of medical education.

About ten days previous to his death he was attacked with acute pericarditis and was confined to his bed. Up to the moment of death he had not been considered seriously ill. While lying in bed and reading from a book his daughter noticed that he suddenly threw his hand over his head, sank into his pillow and in three-quarters of an hour he was dead. Mrs. Taylor died in 1867. Four children—Mrs. Pierre Lorillard, Col. Stewart Taylor, Mrs. Hilliard M. Judge, and an unmarried daughter, are his immediate surviving relatives. His was a well rounded life, full of years, of unusual achievement and of signal honors. To the family bereaved and to the Faculty of the College, the profound sympathy of the profession will be most freely accorded.

Dr. L. F. Warner.

DR. LEVI FARR WARNER, of Boston, for many years an influential member of the American Medical Association, and in 1874 one of its Vice-Presidents, was born Oct. 25, 1822, at Norwich, Chenango Co., N. Y. He died Oct. 12, 1889, at Boston, two weeks before the completion of his 67th year. Educated preliminarily at the Academy at Mexico, N. Y., he studied for his profession during 1842–3 at Geneva Medical College, and subsequently graduated in 1862 at Lind University, Chicago. He commenced practice at Vienna, at Oneida Co., N.Y., and removed thence to St. Louis, where during the war he was Ass't Medical Examiner for the First District of Missouri. He then came to Boston, and was admitted a member of the Massachusetts Medical Society. He was one of the founders of the Gynæcological Society of Boston, and soon became recognized as of especial skill in the diag-

nosis and treatment of the diseases of women. He conducted successfully a large practice until his death, which was from cerebral hæmorrhagic effusion, the result of an accident.

Though always participating with interest in the discussions at the various scientific societies with which he was connected, he wrote but little, save quite a number of obituaries of deceased members of the American Medical Association. His paper, however, "On the Connection of the Hepatic Functions with Uterine Hyperæmias, Flexions, Congestions and Inflammations" in the Transactions of the American Medical Association for 1878, vol. xxix, exerted a distinct influence towards obtaining in New England a wider respect by general practitioners for the specialty of gynecology, then still upon trial, and at the same time served to curb the somewhat inordinate zeal of a portion of its younger enthusiasts.

The writer of this notice was long associated in practice with Dr. Warner, and the relation was of the most intimate character. From first to last he was always faithful to his duties. Not a shadow of difference ever arose between the two, and there was never an unkind word uttered. Scotch in his parentage, several of the most important traits in his character were doubtless inherited. His father a clergyman, he knew the Scriptures absolutely, and they were ever in his mind. He was Presbyterian from childhood, but towards the end of his life held close relations with the Congregationalists, with whom his lately deceased wife was in communion. He enjoyed in a pleasant way religious controversy, but it was rather as a kind teacher than as an antagonist.

He was one of the most genial of men. Full of anecdote to overflowing, cheerful and merry by nature, he carried comfort to the despondent even when his own disappointments and sorrows, and he had many of them, were weighing most heavily upon him.

He was almost perfection itself in his chosen professional work. Always successful in obtaining the full confidence of a patient, he never proved unworthy. He was untiring, in the most chronic and discouraging cases, to a marked degree. Persistent in following up the instances of this kind that were confided to him, he often produced the most surprising and unexpected cures, restoring women to their full usefulness who had for many years apparently been hopeless invalids. At his funeral there were scores of such, who dated their restoration to domestic happiness and to life itself, a long time back, wholly to him, and so lamented their loss accordingly.

To those who treated him fairly he was devoted in his friendship. He was true as steel, and as gentle as a child. Though naturally sensitive and quick tempered, he was always ready to make acknowledgements if it should prove that he had been in error. He disliked to have wealthy patients, declaring that in the middle-class one found the most gratitude. To the poor, both in private and hospital practice, he always gave freely of his thought and time, and had he not, besides, contributed much and constantly in other charity, he would have amassed a fortune from his profession.

He has left instead a better legacy, the loving recollection of a thoroughly upright and honest man, a most delightful companion, an always reliable friend, a really good physician. *May he rest in peace.*

H. R. S.

BOOK REVIEWS.

A System of Obstetrics. By American authors. Edited by Barton Cooke Hirst, M.D., Associate Professor of Obstetrics in the University of Pennsylvania, Obstetrician to the Philadelphia and Maternity Hospitals, etc. Vol. II, illustrated with 221 engravings on wood. Pp. xi, 854. Philadelphia: Lea Bros. & Co. 1889.

The second volume of Hirst's splendid System of Obstetrics forms a valuable contribution to the American literature of this subject. In subjects where recent advance has been made, as in the study of the bacteriology of puerperal fever, the more recent views of the authorities are set forth with a minuteness of detail which is nowhere else to be found in obstetrical works. Indeed, were it not for the work of the bacteriologists of the present day, it would be difficult for obstetrical writers to find anything new to offer their readers, and in point of fact some of the recent publications, with all their pretensions, will be found to have made but very little improvement on their editions of a dozen years ago.

Like all works of the character of the one under consideration, there is a lack of consecutiveness and balance in the arrangement and treatment of the several topics, while on the other hand there is a certain advantage in becoming familiar with the views of a number of authoritative writers.

The present volume contains valuable articles by Dr. Theophilus Parvin, on the "Diseases and Accidents of Labor;" articles on "The Forceps" and "Embryotomy," by Dr. E. G. Davis; articles by Dr. Jas. C. Cameron on "The Premature Induction of Labor," and "Version" (would it it not have been better to have said the "Induction of Premature Labor?"); an article on the "Cæsarean Operation, Symphysiotomy, Laparo-Elytrotomy and Laparo-Cystectomy," by Dr. Robert P. Harris; "Inflammation of the Breast and Allied Diseases Connected with Childbirth," by Dr. Henry J. Garrigues; "The Etiology of Puerperal Fever," by Dr. Harold C. Ernst;

"Some Complications of the Puerperal State Independent of Septic Infection," by Dr. Barton Cooke Hirst; "Insanity and Diseases of the Nervous System in the Child-bearing Woman," by Dr. Jas. Hendric Lloyd; "The Management and the Diseases of the Newborn Infant," by Dr. J. Lewis Smith; "The Surgical Diseases of Infancy and Childhood," by Dr. Stephen Smith; "Congenital Anomalies of the Eye," by Dr. G. E. De Schweinitz.

It will be noticed that some of these contributions are a little outside the strict limits of obstetrics, but the reader will find that the value of the work to the practitioner has been greatly enhanced by the addition of these excellent chapters.

MISCELLANY.

CHAS. CHADWICK, Ottis R. Wyeth, Louis A. Schoen, Geo. J. Schoen, Chas. F. Hermann, Geo. Eyesell, and Horace L. Roy, druggists of Kansas City, Mo., were recently fined $500 each and costs for counterfeiting a preparation known as bromidia.

LETTERS RECEIVED.

Dr. H. G. Chritzman, Welsh Run, Pa.; Parke, Davis & Co., Detroit, Mich.; Dr. Ephraim Cutter, Windsor, Eng.; Dr. Charles F. Fisher, Clayton, N. J.; Dr. Auna E. Broomall, Philadelphia; V. R. Donetta, New York; Dr. J. S. Gerhard, Ardmore, Pa.; Thos. Leeming & Co., New York; Lea Bros. & Co., Philadelphia; Dr. H. C. Dalton, St. Louis, Mo.; Dr. H. L. Getz, Marshalltown, Ia.; Dr. John Price, Philadelphia; University of Michigan, Ann Arbor, Mich.; Wm. R. Warner & Co., Philadelphia; Dr. Henry P. Wolcott, Cambridge, Mass.; Dr. G. R. Wells, Gold Hill, Col.; Dr. Frederick E. Hyde, Whiteboro, N. Y.; Dr. George G. Sabin, Black River, N. Y.; W. P. Cleary, New York; Dr. I. S. Stone, Lincoln, Va.; S. R. Niles, Boston; Henry W. Quin, New York; Dr. Rufus B. Hall, Cincinnati, O.; Dr. J. N. Martin, Ann Arbor, Mich.; Gladstone Lamp Co., New York; Dr. A. T. Cabot, Boston; Dr. S. C. Newman, Pasadena, Cal.; American News Co., New York; Dr. L. C. Moore, Muscatine, Ia.; V. Golder, Charleston, Mo.; Dr. P. Brynberg Porter, New York; Dr. J. M. Bessey, Toledo, O.; G. Putnam's Sons, I. Haldenstein, New York; Peacock Chemical Co., St. Louis, Mo.; Dr. R. M. Jordan, St. Louis; W. H. Shieffelin & Co., New York; Western Reserve University, Cleveland, O.; Dr. N. A. Olive, Meridian, Tex.; Dr. William Perrin Nicolson, Atlanta, Ga.; Dr. A. VanderVeer, Albany, N. Y.; Publishers' Commercial Union, Chicago; Drs. Knode & Gillette, Omaha, Neb.; Dr. J. C. Reeve, Dayton, O.; Dr. Wm. C. Rives, Newport, R. I.; Dr. C. W. Nutting, Etna, Cal.; Dr. A. R. Baker, Cleveland, O.; L. S. Trowbridge, Detroit, Mich.; Dr. Thos. F. Rumbold, St. Louis, Mo.; Dr. R. J. Dunglison, Philadelphia; Dr. W. H. Geddings, Bethlehem, N. H.; A. A. Marks, New York; Dr. H. H. Roedel, Lebanon, Pa.; J. Walter Thompson, New York; Ward Bros., Jacksonville, Ill.; Dr. H. J. Smith, Blackshear, Ga.; W. W. Harner, DeGraff, O.; Rio Chemical Co., St. Louis, Mo.; Dr. Joseph Price, Philadelphia; Dr. G. W. McCaskey, Fort Wayne, Ind.; Dr. J. A. Hinton, Friendship, Tenn.; Dr. Eugene Grissom, Raleigh, N. C.; Dr. G. C. Fisher, Patoka, Ind.; R. W. Gardner, New York; Dr. F. D. Mooney, St. Louis, Mo.; Mrs. J. M. Henry, Rockport, Ill.; Dr. W. W. Landon, Fowler, Ill.; Dr. DeLaskie Miller, Chicago; Dr. J. Hillmantel, Missoula, Mo.; Battle & Co., St. Louis, Mo.; Lutz & Movius, New York; Dr. Henry O. Marcy, Boston; Dr. Wm. Creighton Woodward, Philadelphia; Dr. C. A. Freeman, Trenton, Mo.; Dr. Geo. A. Dixon, New York; National Medical College, Washington, D. C.; Dr. J. L. Rollins, Auburn, Cal.; Dr. H. C. Dalton, St. Louis, Mo.; Dr. James B. Bullett, New York; Columbus Medical College, Columbus, O.; Dr. J. D. Scouller, Pontiac, Ill.; Dr. J. H. Bennett, Wauseon, O.; Dr. I. S. Stone, Lincoln, Va.; Dr. J. H. Lyon, Roslyn, Wash.; Dr. J. F. Maine, Fort Wayne, Ind.; Dr. E. M. McDonald, Daylestown, Wis.; Dr. David S. Snively, Fort Bennett, Dak.; Dauchy & Co., New York; Dr. H. C. Menam, Salem, Mo.; Dr. E. M. Nelson, St. Louis, Mo.; Dr. C. F. Phillips, Stevens Point, Wis.; Dr. Henry W. Williams, Boston; Dr. Samuel B. Rowe, Rolla, Mo.; Dr. G. S. Franklin, Chillicothe, O.; Dr. S. S. Bishop, Chicago; Dr. Landon B. Edwards, Richmond, Va.; Charles H. Phillips Chemical Co., New York; Dr. J. L. Rollins, Auburn, Cal.; Dr. K. H. Boland, Atlanta, Ga.; Dr. Joseph Gutz, Florence, Ariz.; Dr. A. J. Sprague, Cleveland, O.; Dr. M. A. Bogie, Kansas City, Mo.; Dr. F. E. Bell, Palmyra, Ill.; Charles Scribner's Sons, New York; Dr. R. J. Dunglison, Dr. Thomas Hay, Philadelphia; Dr. Beugnies-Corbeau, Givet, France; Dr. J. B. Mattison, Brooklyn, N. Y.; D. Appleton & Co., New York; Philadelphia Academy of Surgery; Dr. H. R. Storer, Newport, R. I.; Mariani & Co., New York; John E. Ruebsam, Washington; Canton Surgical & Dental Chair Co., Canton, O.; Drs. Knode & Gillette, Omaha, Neb.; Dr. H. H. Maynard, Los Angeles, Cal.; Dr. B. M. J. Conlin, Alexandria, Dak.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from November 2, 1889, to November 8, 1889.

By direction of the Secretary of War, Major Robert M. O'Reilly, Surgeon, will, at the expiration of his present leave of absence, proceed to Ft. Logan, Col., and report in person to the commanding officer of that post for duty. Par. 6, S. O. 256, A. G. O., November 2, 1889.

Capt. James C. Merrill, Asst. Surgeon, is relieved from duty at Frankford Arsenal, Pa., and ordered to duty at Ft. Reno, Ind. Ter. Par. 6, S. O. 256, A. G. O., November 2, 1889.

Capt. Charles S. Black, Asst. Surgeon, is relieved from duty at Ft. Sidney, Neb., to take effect upon the expiration of his present leave of absence, and will report in person to the commanding officer, Ft. DuChesne, Utah. Par. 6, S. O. 256, A. G. O., Washington, November 2, 1889.

Capt. R. W. Johnson, Asst. Surgeon, granted leave of absence for one month, to take effect on or about November 10 prox. Par. 4, S. O. 110, Dept. of Ariz., Los Angeles, Cal., October 29, 1889.

By direction of the Secretary of War, leave of absence for two months on account of sickness, with permission to leave the Div. of the Missouri, is granted Capt. Junius L. Powell, Asst. Surgeon. Par. 2, S. O. 258, A. G. O., Washington, November 5, 1889.

Lieut. F. J. Ives, Asst. Surgeon U. S. A., granted two months' leave of absence. Par. 3, S. O. 256, A. G. O., November 2, 1889.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending November 9, 1889.

Surgeon B. F. Mackie and Asst. Surgeon Geo. McC. Pickrell, detached from the U. S. S. "Ossipee" and placed on waiting orders.

CORRIGENDUM.

On page 677, last line but one, in THE JOURNAL of November 9, for "gr. T," read gr. j.